GEMOTECH

Limited in Space Unlimited in Application

Industrial Automatic Control Products Selection Guide

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Company Profile

Founded in 1999, Beijing GEMOTECH Intelligent Technology Co., Ltd. is a high-tech company integrated R & D, production, system integration, sales and services.

GEMOTECH leads the development of industrial control industry on *Embedded Computer* notion and obtains the approval of the customers widely, relying on the forward-looking technical application idea, the remarkable product and the principle *customer benefit is supreme*. In October, 2003, we establish industrial data acquisition R & D, manufacturing center, in order to improve the technical of industrial control devices and enhance the application level. In addition, we obtained the ISO-9001/2000 International Quality and Management System certificate at the end of Year 2005, so that make sure to supply more considerate service for customers.

Our main products are: PC-BASED Products, Embedded Products, Data Acquisition Modules, Communication Products, Which are Widespread Applied in Telecommunications, Metallurgical, Transport, Power, Railroad, Communications, Financial and Security Defense Industries.

Nowadays, we have set up the perfect sales and service system throughout the country. There are 3 branches, 6 offices, and some agents and dealers in more than 10 cities in the country. In addition, the international trade department is set up, which brings the superior technical in line with international practice, to make up the global marketing network. The business covers Asian, European and American areas.

After ten years rapid development, GEMOTECH Intelligent Technology Co., Ltd. persists in the marketing philosophy *Base in China, Move Towards the World.* We will provide more superior and more perfect service to the customers on the road of developing China's automation industrial industry.

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RemoDAQ-9000 GSeneral Introduction

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RemoDAQ-9000 Series I/O Modules Selection Guide

RemoDAQ-9000 Series I/O Modules Introduction

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RemoDAQ-8000 Series Based on and Communication Controlling

RemoDAQ-8000 Profile

MADE

Introduction

RemoDAQ-8000 series modules are researched and developed by Beijing Gemotech Intelligent Technology Co., Ltd, including many main profibus (RS-485, industrial Ethernet, CAN BUS, Profibus). Gemotech has produced many distributed, intelligent I/O control and communication products. Structurally, they have the compact and stable performance, convenient to install. We absorb the advantages of similar products from many domestic and foreign manufacturers to make our products have better reliability and anti-interference performance. In software, they contain rich library functions, drivers and practical process used to debug and support many popular communication protocols such as Modbus/RTU, Modbus/TCP, ASCII, and so on. RemoDAQ-8000 series could communicate directly with most Configuration Software or HMI to get data. RemoDAQ-8000 series have obtained many users' ratification and high evaluation, since they came into the market. At present, RemoDAQ-8000 series have been the well-known brand in the domestic area of distributed I/O modules.

Products Classification

At Present RemoDAQ-8000 Series of Gemotech Include The Following Broad Headings

1. RemoDAQ-80XX——The Distributed Data Acquisition and Control Modules Based on RS-485 Bus. They Contain:

A. RemoDAQ-801X Series Analog and Thermocouple Input Modules
B. RemoDAQ-802X Series Analog Input Modules
C. RemoDAQ-803X Series RTD Input Modules
D. RemoDAQ-804X Series Open Collector Output and Optic Isolated Digital Input Modules
E. RemoDAQ-805X Series Isolated or Non-isolated Digital Input and Output Modules
F. RemoDAQ-806X Series Relay Output and Optic Isolated Digital Input Modules
G. RemoDAQ-807X Series Intelligent Electricity Acquisition Modules
H. RemoDAQ-808X Series Timing Counting and Digital Output Module

2. RemoDAQ-81XX——Programmable Communication Controller, Could be Divided Into:

A. RemoDAQ-8187 Series Ethernet Communication Modules are Based on 80188-40 CPU, ROM DOS Including The Ethernet Interface, Serial Ports and Kinds of I/O Eexpansion Function.
B. RemoDAQ-8188 Series Programmable Communication Controllers are Based on 80188-40 CPU, ROM DOS and Serial Ports.

Field Bus Distributed I/O Module Module

IN CHINA SELF-DEVELOPING

C. RemoDAQ-8188E Series are The Ethernet Communication Modules Based on The 80188-40 CPU, ROM DOS, Ethernet Interface and Serial Ports.

3. RemoDAQ-83XX——Distributed Data Acquisition and Control Modules based on industrial Ethernet, Could be Divided Into:

A. RemoDAQ-831X Series Analog and Thermocouple Input Modules.
B. RemoDAQ-832X Series Analog Output Modules.
C. RemoDAQ-833X Series RTD Input Modules.
D. RemoDAQ-834X Series Open Collector Output and Optic Isolated Digital Input Modules.
E. RemoDAQ-835X Series Isolated or Non-isolated Digital Input and Output Modules.
F. RemoDAQ-836X Series Relay Output and Optic Isolated Digital Input Modules.
G. RemoDAQ-837X Series Intelligent Electricity Acquisition Modules.
H. RemoDAQ-838X Series Timing Counting and Digital Output Module.

4. RemoDAQ-85XX——R-85XX Communication Interface Converter/Relay/Ethernet Switch Module

A. RemoDAQ-851X——RS-422/485 Relay, Ethernet Switch.
B. RemoDAQ-852X——RS-232 to RS-422/485 Module.
C. RemoDAQ-853X——RS-232/422/485 to CAN BUS Module.
D. RemoDAQ-854X——RS-232/422/485 Ethernet to Multi-mode Fiber Converter.
E. RemoDAQ-855X——RS-232/485/422/Ethernet GPRS/CDMA DTU (Modem) Wireless Communication Module.
F. RemoDAQ-856X——USB to RS-232/422/485/Ethernet / CAN BUS Module.
G. RemoDAQ-857X——RS-232/422/485 to Ethernet Module

In Addition, Gemotech are Developing The Following Modules:

1. RemoDAQ-84XX——The Distributed I/O Modules Based on CAN BUS.
2. RemoDAQ-86XX——The I/O Modules Based on USB Interface.
3. RemoDAQ-87XX——The Distributed I/O Modules Based on ProfiBUS.
4. RemoDAQ-88XX——The Wireless I/O Modules Based on Zigbee.

Product Selection Guide

3. The Features of The RemoDAQ-8000 Series Modules

1.Rich Variety Kind of Products.

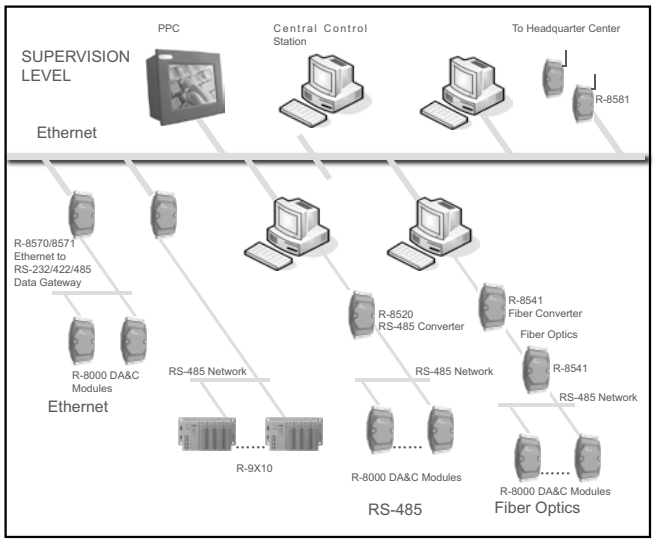
At present, RemoDAQ-8000 series include almost all kinds of data acquisition modules which could be supposed to be top of the world. This series contain analog input and output modules, RTD input modules, digital input and output modules, relay output, timing counter DC&AC electricity acquisition modules and so on also including kinds of communication interface converter, programmable and non-programmable communication controller, wireless transmission modules and so on. They are based on RS-232/RS-422/RS-485 Bus, Ethernet, CAN BUS, and Wireless Ethernet, which could be called as *industrial data acquisition module worlds*

2. Built-in Dual Watchdogs

Most data acquisition and control modules have dual internal Watchdogs, one is responsible for monitoring the communication circuit to avoid communication outage, and the other is responsible for local procedure to avoid DeadHalt. This could highly increase the reliability of the system. (It should be pointed out that watch-dog function needs to be activated by users in the procedure, there is always a function waste because some users don't notice this)

3. Flexible Networking Schemes

RemoDAQ-8000 series modules could be easy to form any kinds of network structure so as to realize distributed or centralized data acquisition control affection.



4. Flexible Installation Mode

You could install the modules easily on the DIN lead rail or wall surface, making use of pluggable terminals to connect with signal. This ensures the modules are convenient to install and maintain.

Stacked Mounting DIN rail Mounting

5. Meet the Demands of Industrial Environment

RemoDAQ-8000 series modules could be supplied power by +10V~+30V non-conditioning DC, to avoid the damage from the reversal connection of the power. Signal terminals could support hot plugging without affecting the normal network. The work temperature of RemoDAQ-8000series is -25~+70℃, the isolation voltage of most modules is +3000VDC.

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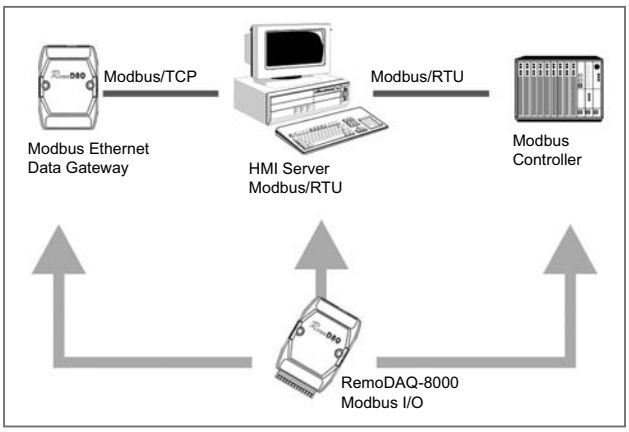
SGS
VERIFICATION OF EMC COMPLIANCE

6. Support Main Communication Protocol

Modbus/RTU, Modbus/TCP, Modbus/ASCII, ASCII and other communication protocols have been widely used as industrial standard in industrial field. RemoDAQ-8000 series supporting these protocols could be connected directly to HMI, PLC, PPC or other Configuration Software which also support these protocols without gateway, Network Bridge or other devices



Support multiple communication mediums

RemoDAQ-8000 series modules could transmit data by the many mediums such as RS-485, 10/100M Ethernet, telephone wire, optical fiber and GSM, GPRS/CDMA to meet kinds of different demands in the industrial field.

4. Application Areas

RemoDAQ-8000 series modules are specially used in the following areas.

1. In the office building, factories and the open country environment , the devices and signals measured have dispersed distribution geographically, for example: Engine room monitoring, Atmospheric environment monitoring, Petroleum pipe line or thermal energy pipe network monitoring, Stage light monitoring; Waterworks monitoring and so on.
2. Replace the Bus model I/O card (ISA, PCI, PC/104).
3. Work with PLC, PAC. Lower the system cost

Second Duarter.RemoDAQ-80XX—The Distributed I/O Modules Dased on RS-485 Bus

Introduction

RS-485 Bus Has The Following Characteristic:

1. The line connection is simple and flexible, only needs 1 pair of twisted pair line to be possible to reach about 255 modules to connect in the identical network.
2. May transmit 1.2Km, without repeater, but the communication distance may increase 2~3Km when adding one repeater every time.
3. The high communication reliability; In fact, many field buses, like CAN BUS, Profibus, Lonworks and so on are the same as the RS-485 on the physical level; namely the transmission and reception of communication signals adopt differential method, so it has the ability to restrain common-mode interference.

As a result of above superiority, the RS-485 bus is widely used in the industry scene.

Product Selection Guide

RemoDAQ-801X Series Analog/Thermocouple Input Modules Zoom Table

Module										
		R-8011 R-8011+	R-8012/R-8012+ R-8012F/ R-8012F+	R-8016 R-8016+	R-8017 R-8017+	R-8017A R-8017A+	R-8017SC R-8017SV	R-8017C R-8017C+	R-8017F R-8017F+	R-8017M R-8017M+
Resolution		16 bit	16 bit	16 bit	16 bit	16 bit	16 bit	16 bit	16 bit	16 bit
Analog Input	Input Channel	1-channel	1-channel	2-channels	8-channel	16-channel	8-channel	8-channel	8-channel	8-channel
	Sampling Rate	10Hz	10Hz 75Hz(R-8012F)	10Hz	10Hz	10Hz	10Hz	10Hz	75Hz	10Hz
	Input Voltage	±15mV ±50mV ±100mV ±500mV ±1V ±2.5VS	±150mV ±500mV ±1V ±5V ±10V	±15mV ±50mV ±100mV ±500mV	±150mV ±500mV ±1V ±5V ±10V	0～5V 0～10V	±5V (R-8017SV)	-	±150mV ±500mV ±1V ±5V ±10V	±150mV ±500mV ±1V ±5V ±10V
	Input Current	±20mA*	±20mA*	±20mA*	±20mA*	0～20mA*	±20mA (R-8017SC)	±20mA	±20mA*	±20mA*
	Direct Sensor Input	J, K, T, E,R, S,B thermocouple	-	-	-	-	-	-	-	-
	Fault Detection	Yes	-	-	-	-	-	-	-	-
	Channels Could be Configurated Independently	-	-	-	-	-	-	-	-	-
	Storage Capacity	-	-	-	-	-	-	-	-	512K
	High Differential Voltage Protection	-	-	-	-	-	-	-	-	-
Analog Output	Output Channel	-	-	1	-	-	-	-	-	-
	Voltage Output	-	-	0～10V	-	-	-	-	-	-
	Current Output	-	-	30mA	-	-	-	-	-	-
Digital Input and Output	Input Channel	1	1	-	-	-	-	-	-	-
	Output Channel	2	2	4	-	-	-	-	-	-
	Alarm Setting	-	-	-	-	-	-	-	-	-
Isolation Protection		3000VDC	3000VDC	3000VDC	3000VDC	3000VDC	3000VDC	3000VDC	3000VDC	3000VDC
Watchdog Timing		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Security Setting		-	-	-	-	-	-	-	-	-
Modbus Protocol		Support (R-8011+)	Support(R-8012+) Support(R-8012F+)	Support (R-8016+)	Support (R-8017+)	Support (R-8017A+)	-	Support (R-8017C+)	Support (R-8017F+)	Support (R-8017M+)

RemoDAQ-801X Series Analog/Thermocouple Input Modules Zoom Table

Module								
		R-8017R R-8017R+	R-8018BL R-8018BL+	R-8018RC R-8018RC+	R-8018ID R-8018ID+	R-8018T R-8018T+	R-8018M R-8018M+	R-8018R R-8018R+
Resolution		16 bit	16 bit	16 bit	16 bit	16 bit	16 bit	16 bit
Analog Input	Input Channel	8-channel	8-channel	8-channel	8-channel	8-channel	8-channel	8-channel
	Sampling Rate	10Hz	10Hz	10Hz	10Hz	10Hz	10Hz	10Hz
	Input Voltage	±150mV ±500mV ±1V ±5V ±10V	±15mV ±50mV ±100mV ±500mV ±1V ±2.5V	±15mV ±50mV ±100mV ±500mV ±1V ±2.5V	±15mV ±50mV ±100mV ±500mV ±1V ±2.5V	-	±15mV ±50mV ±100mV ±500mV ±1V ±2.5V	±15mV ±50mV ±100mV ±500mV ±1V ±2.5V
	Input Current	±20mA*	±20mA*	±20mA*	±20mA*	-	±20mA*	±20mA*
	Direct Sensor Input	-	J, K, T, E,R,S,B thermocouple	J, K, T, E,R,S,B thermocouple	J, K, T, E,R,S,B thermocouple	J, K, T, E,R,S,B thermocouple	J, K, T, E,R,S,B thermocouple	J, K, T, E,R,S,B thermocouple
	Fault Detection	-	Yes	-	Yes	-	-	-
	Channels Could be Configurated Independently	-	-	-	-	-	-	-
	Storage Capacity	-	-	-	-	-	512K	-
	High Differential Voltage Protection	$250V_{RMS}$	-	-	-	-	-	$250V_{RMS}$
Isolation Protection		3000VDC	3000VDC	3000VDC	3000VDC	3000VDC	3000VDC	3000VDC
Watchdog Timing		Yes	Yes	Yes	Yes	Yes	Yes	Yes
Security Setting		-	-	-	-	-	-	-
Modbus Protocol		Support (R-8017R+)	Support (R-8018BL+)	Support (R-8018RC+)	Support (R-8018ID+)	Support (R-8018T+)	Support (R-8018M+)	Support (R-8018R+)

Product Selection Guide

RemoDAQ-802X Series Analog Output Modules Zoom Table

Module						
		R-8021/R-8021+ R-8021P/R-8021P+	R-8022 R-8022+	R-8024 R-8024+	R-8024B	R-8028 R-8028+
Resolution		12 bit/16 bit	12 bit	12 bit	12 bit	14 bit
Analog Output	Output Channel	1	2	4	4	8
	Voltage Output	0～10V	0～10V	0～10V	0～10V	0～10V
	Current Output	0～20mA 4～20mA	0～20mA 4～20mA	0～20mA 4～20mA	0～20mA 4～20mA	0～20mA 4～20mA
	Alarm Setting	-	-	-	-	-
Isolation Protection		3000VDC	3000VDC	3000VDC	3000VDC	3000VDC
LED Display		-	-	-	-	-
Watchdog Timing		Yes	Yes	Yes	Yes	Yes
Security Setting		Yes	Yes	Yes	Yes	Yes
Modbus Protocol		Support(R-8021+) Support(R-8021P+)	Support(R-8022+)	Support(R-8024+)	Support	Support(R-8028+)

RemoDAQ-803X Series RTD Input Modules Zoom Table

Module					
		R-8031 R-8031A	R-8033 R-8033A	R-8034 R-8034+	R-8036 R-8036+
Resolution		16 bit	16 bit	16 bit	16 bit
RTD Input	Input Channel	1-channel	3-channel	4-channel	6-channel
	Sampling Rrate	10Hz	10Hz	10Hz	10Hz
	RTD Type	Pt 100 Cu100 Cu50 BA1 BA2 G53	Pt 100 Cu100 Cu50 BA1 BA2 G53	Pt 100 Cu100 Cu50 BA1 BA2 G53	Pt 100 Cu100 Cu50 BA1 BA2 G53
	Input Connection Type	2, 3, 4 wire 2, 3 wire（R-8031A）	2, 3, 4 wire 2, 3 wire（R-8033A）	2, 3 wire	2, 3 wire
	Channels Could be Configurated Independently	-	-	Yes	Yes
Isolation Pprotection		3000VDC	3000VDC	3000VDC	3000VDC
Watchdog Timing		Yes	Yes	Yes	Yes
Security Setting		Yes	Yes	Yes	Yes
Modbus Protocol		-	-	Support（R-8034+）	Support（R-8036+）

RemoDAQ-804X Series Open Collector Output/ Optic Isolated Digital Input Modules

Module		R-8041 R-8041+	R-8042 R-8042+	R-8043 R-8043+	R-8044 R-8044+
Digital Input and Output	Input Channel	14	-	-	4
	Output Channel	-	13	16	8
	Alarm Setting	-	-	-	-
Isolation Protection		3000VDC	3000VDC	3000VDC	3000VDC
LED Display		Yes	Yes	Yes	Yes
Watchdog Timing		Yes	Yes	Yes	Yes
Security Setting		Yes	Yes	Yes	Yes
Modbus Protocol		Support（R-8041+）	Support（R-8042+）	Support（R-8043+）	Support（R-8044+）

RemoDAQ-805X Series Isolation or Non-isolation Digital I/O Modules Zoom

Module		R-8050 R-8050+	R-8051 R-8051+	R-8052 R-8052+	R-8053 R-8053+	R-8055 R-8055+	R-8056S R-8056SO	R-8057 R-8057+
Digital Input and Output	Input Channel	7	16	8	16	8	-	12
	Output Channel	8	-	-	-	8	12(Sink) 12(source)	4
	Alarm Setting	-	-	-	-	-	-	-
Isolation Protection		3000VDC	3000VDC	3000VDC	3000VDC	3000VDC	3000VDC	3000VDC
LED Display		Yes	Yes	Yes	Yes	Yes	Yes	Yes
Watchdog Timing		Yes	Yes	Yes	Yes	Yes	Yes	Yes
Security Setting		Yes	Yes	Yes	Yes	Yes	Yes	Yes
Modbus Protocol		Support （R-8050+）	Support （R-8051+）	Support （R-8052+）	Support （R-8053+）	Support （R-8055+）	Support	Support （R-8057+）

Product Selection Guide

RemoDAQ-806X Series Relay Output/Optic Isolated Digital Input Modules
RemoDAQ-808X Series Timing and Counter Output Modules Zoom Table

Module		R-8060 R-8060+	R-8065 R-8065+	R-8066 R-8066+	R-8068 R-8068+	R-8069 R-8069+	R-8080 R-8080D	R-8080D+
Digital Input and Output	Input Channel	-	4	-	-	-	-	-
	Output Channel	4	5	7	8-channel Relay	8-channel Power Relay	2	2
	Alarm Setting	-	-	-	-	-	Yes	Yes
Counter	Channel	-	-	-	-	-	2	2
	Input Frequency	-	-	-	-	-	100KHz	50KHz
Isolation Protection		3000VDC	3000VDC	3000VDC	3000VDC	3000VDC	3000VDC	3000VDC
LED Display		Yes	Yes	Yes	Yes	Yes	Yes	Yes
Watchdog Timing		Yes	Yes	Yes	Yes	Yes	Yes	Yes
Security Setting		-	-	-	-	-	-	-
Modbus Protocol		Support （R-8060+）	Support （R-8065+）	Support （R-8066+）	Support （R-8068+）	Support （R-8069+）	-	Support

R-801X Analog/ Thermocouple Input Module

R-8011/R-8011+

1-channel Analog/Hot Resistance Input and Digital Input Module

- Resolution: 16-bit
- Analog type: hot resistance, mV, V or mA
- Input Range: ± 15mV, ±50mV, ±100mV, ±500mV, ±1V, ±2.5V, ±20mA
- Hot Resistance: J, K, T, E, R, S, B, N, C
- Sampling Rate: 10Hz
- High/low limit programmable alarm
- Digital Input: 1- channel
- Digital Output: 2-channel
- With Modbus communication protocol (R-8011+)

R-8012/R-8012+

1-channel Analog Input,DI/O Module

- Resolution: 16-bit
- Analog Input Range: ±150mV, ±500mV, ±1V, ±5V, ±10V, ±20mA
- Sampling Rate: 10Hz
- Digital Input: 1- channel
- Digital Output: 2- channel
- With Modbus communication protocol (R-8012+)

R-8012F/R-8012F+

1-channel High-speed Analog Input Module

- Resolution: 12-bit
- Analog Input Range: ±150mV, ±500mV, ±1V, ±5V, ±10V, ±20mA
- Sampling Rate: 75Hz
- Digital Input: 1- channel
- Digital Output: 2- channel
- With Modbus communication protocol (R-8012F+)

R-801X Analog/ Thermocouple Input Module

R-8016/R-8016+

2-channel 4 Wire Tensile Force (Strain Force) Input Module

- Resolution: 16-bit
- Channel: 2
- Input Range: ±15mV,±50mV,±100mV ,±500mV,±20mA
- Isolated Voltage: 3000V
- Sampling Rate: 10Hz
- 4-wire Input
- Digital Input: 1-channel
- Digital Output: 4-channel
- With Modbus communication protocol (R-8016+)

R-8017A/R-8017A+

16-channel Single End Analog Input Module

- Resolution: 16-bit
- Analog Input Range: 0~5V, 0~10V
- Channel: 16-channel single end
- Sampling Rate: 10Hz
- High/low limit programmable alarm
- With Modbus communication protocol (R-8017A+)

R-8017/R-8017+

8-channel Analog Input Module

- Resolution: 16-bit
- Analog Input Range:
  ±150mV, ±500mV, ±1V, ±5V, ±10V, ±20mA
- Channel: 6-channel differential/ 2-channel
  single-ended or 8-channel differential (jumper select)
- Sampling Rate: 10Hz
- With Modbus communication protocol (R-8017+)

R-8017SC

Economic 8-channel Current Acquisition Module

- Resolution: 16-bit
- Current Input Range: ±20mA
- Channel: 6-channel differential/ 2-channel single-ended or 8-channel differential (jumper select)
- Sampling Rate: 10Hz
- Economical analog input module

R-8017SV

Economic 8-channel Voltage Acquisition Module

- Resolution: 16-bit
- Voltage Input Range: ±5V
- Channel: 6-channel differential/ 2-channel single-ended or 8-channel differential (jumper select)
- Sampling rate: 10Hz
- Economical analog input module

R-8017C/R-8017C+

8-channel Current Input Module

- Resolution: 12-bit
- Analog Input Range: ±150mV, ±500mV, ±1V, ±5V, ±10V, ±20mA
- Channel: 6-channel differential/ 2-channel single-ended or 8-channel differential (jumper select)
- Sampling frequency: 75Hz
- With Modbus communication protocol (R-8017C+)

R-801X Analog/ Thermocouple Input Module

R-8017F/R-8017F+

8-channel High-speed Analog Input Module

- Resolution: 12-bit
- Analog Input Range:
  ±150mV, ±500mV, ±1V, ±5V, ±10V, ±20mA
- Channel: 6-channel differential/ 2 channel
  single-ended or 8-channel differential (jumper select)
- Sampling frequency: 75Hz
- With Modbus communication protocol (R-8017F+)

R-8017R/R-8017R+

8-channel Analog Input/Thermocouple Input Module with High Voltage Protection

- Channel Over-voltage Protection: 250Vrms
- Channel Under-voltage Protection: 250Vrms
- Others same as R-8017
- With Modbus communication protocol (R-8017R+)

R-8017B

8-channel Analog Input Module with Modbus (Channel independent configuration)

- 16-bit resolution
- Channel: 8-channel differential analog inputs
- Channel independent configuration
- Input type: mV, V, mA
- Range: ±150mV, ±500mV, ±1V, ±5V, ±10V,
  ±20mA, 4-20mA
- Isolated Voltage: 3000VDC
- Over Voltage protection: ±35V
- Sampling: 10times/S
- Input Impedance: 20M Ohms
- Supports Modbus/RTU Protocol

R-8017D

NEW

17 Channel Single End Analog Input, 3 Channel Isolated D/I,3 Channel Relay Output Module

- 17 Channel Single End Analog Input
- Input type: mA,V
- Range: 0~20 mA,0~5V choose through jumper wire and software
- High Level: 3.5V to 30V
- Low Level: 0 to 1V
- Isolation Voltage: 3000VDC
- 3-channel Form “A” Relay Output: Contact Rating: 5A @30VDC;5A@220VAC
- Support Modbus communication protocol

R-8017NC/R-8017NC+

NEW

8-channel Current Input Module

- Resolution:16-bit
- Current Input Range: ±20mA
- Channel:8-channel differential
- Sampling Frequency:10Hz
- With Modbus communication protocol(R-8017NC+)
- 26 PIN terminal

R-8018A/R-8018A+

NEW

8-channel Analog/Thermocouple Input Module

- Resolution: 16-bit
- Analog Input: Thermocouple, mV, V or mA
- Input Range: ±15mV±50mV, ±100mV, ±500mV, ±1V, ±2.5V, ±20mA
- Thermocouple Type: J, K, T, E, R, S, B, N
- Channel: 8-channel differential
- Sampling Frequency: 10Hz
- Input adopts filter circuit, with performance to resist electromagnetic interference strongly
- External CJC
- With Modbus communication protocol(R-8018A+)
- 26 PIN terminal

R-801X Analog/ Thermocouple Input Module

R-8018AB/R-8018AB+

NEW

8-channel Analog/Thermocouple Input Module

- Resolution:16-bit
- Analog Input Range:Thermocouple, mV, V or mA
- With thermocouple wire opening detection
- Input Range: ±15mV, ±50mV, ±100mV, ±500mV, ±1V, ±2.5V, ±20mA
- Thermocouple Type:J, K, T, E, R, S, B, N
- Channel:8-channel differential
- Sampling Frequency:10Hz
- External CJC, 26 PIN terminal
- With Modbus communication protocol(R-8018AB+)

R-8018BL/R-8018BL+

8-channel Analog/Thermocouple Input Module With Thercouple Interrupt Detection

- Resolution: 16-bit
- Analog Input: Thermocouple, mV, V or mA
- Input Range: ±15mV, ±50mV, ±100mV, ±500mV, ±1V, ±2.5V, ±20mA
- Thermocouple Type: J, K, T, E, R, S, B, N, C
- Channel: 6-channel differential, 2-channel single-ended or 8-channel differential (jumper select)
- Sampling Rate: 10Hz
- With thermocouple wire opening detection
- With Modbus communication protocol (R-8018L+)

R-8018RC/R-8018RC+

8-channel Analog Input/Thermocouple Input Module with Filter

- Resolution: 16-bit
- Analog Input: Thermocouple, mV, V or mA
- Input Range: ±15mV, ±50mV, ±100mV, ±500mV, ±1V, ±2.5V, ±20mA
- Thermocouple Type: J, K, T, E, R, S, B, N, C
- Channel: 6-channel differential/ 2-channel single-ended or 8-channel differential (jumper select)
- Sampling Rate: 10Hz
- Input adopts filter circuit, with performance to resist electromagnetic interference strongly
- With Modbus communication protocol (R-8018RC+)

R-8018T/R-8018T+

8-channel Thermocouple Input Module

- Resolution: 16-bit
- Input Type: Thermocouple
- Thermocouple Type: J, K, T, E, R, S, B, N, C
- Channel: 6-channel differential/ 2-channel single-ended or 8-channel differential (jumper select)
- Sampling Rate: 10Hz
- With Modbus communication protocol (R-8018T+)

R-8018ID/R-8018ID+

R-8018BL With Dialing Number On-Off to Set Up Address

- Set up module station address by dialing number on-off
- Be convenient to repair and replace on the spot
- Others same as R-8018BL
- With Modbus communication protocol (R-8018ID+)

R-8018B

8-channel Analog Input Module with Modbus

- 16-bit resolution
- Channel: 8-channel different analog inputs
- Channel independent configuration
- Input Type: Thermocouple
- Range: ±20mA, 4-20mA, J 0-760℃, K 0-1370℃, T 100-400℃, E 0-1000℃, R 500-1750℃, S 500-1750℃, B 500-1800℃
- Isolated Voltage: 3000VDC
- Over Voltage Protection: ±35V
- Sampling: 10times/S
- Input Impedance: 20M Ohms
- Supports Modbus/RTU Protocol
- Wiring burned-out detectable function

R-802X Analog Output Module

R-8021/R-8021+

1-channel Analog Output Module

- Resolution: 12-bit
- Output Type: mA, V
- Output Range: 0~20mA, 4~20mA, 0~10V
- Accuracy: Output Current: Full-range: +/-0.1%
  Output Voltage: Full-range: +/-0.2%
- Programmed Output Slope:
  0.0625 ~ 64V/second, 0.125~128mA/second
- With Modbus communication protocol (R-8021+)

R-8022/R-8022+

2-channel Analog Output Module

- Resolution: 12-bit
- Current Output: 0~20mA, 4~20mA
- Voltage Output: 0~10V
- Channel-to-channel isolation
- With Modbus communication protocol

R-8024/R-8024+

4-channel Analog Output Module

- Resolution: 14-bit
- Current Output: 0~20mA, 4~20mA
- Voltage Output: 0~5V, 0~10V, ±10V
- Resolution: 14-bit
- Programmable Output Slope
- With Modbus communication protocol (R-8024+)
- D/A channel must be with external power supply

R-8024B

4-channel Analog Output Module with Modbus

- Resolution: 12-bit
- Input Type: V, mA
- Range: +/-10mV, +/-20mA, 4-20mA
- Channel independent configuration
- Accuracy: +/-0.1%FSR current output
  +/-0.2%FSR voltage output
- Zero Drift: voltage output +/-30μV/℃
  current output 0.2μA/℃
- Temperature drift: +/-25ppm/℃
- Channel: 4
- D/A channel no need extra power supply

R-803X RTD Input Module

R-8031/R-8031A

1-channel RTD Input Module

- Resolution: 16-bit
- Analog Input Type: P100or Cu100, Cu50, BA1, BA2, B53
- Sampling Rate: 10Hz
- Input Connection Type: R-8031: 2, 3 or 4 wire
  R-8031A: 2, 3 wire
- Pt100 Input Range: +/-100℃,0~100℃,0~200℃,0~600℃
- Cu100 Input Range: -50 ~ 150℃
- Cu50: -50 ~ 150℃

R-8033/R-8033A/ 8033+

3-channel RTD Input Module

- Resolution: 16-bit
- Analog Input Type: Pt or Cu100, Cu50, BA1, BA2, B53
- Sampling Rate: 10Hz
- Input Connection Type: R-8033: 2, 3 or 4-wire;
  R-8033A: 2, 3-wire
- Pt100 Input Range: +/-100℃, 0~100℃, 0~200℃,
  0~600℃
- Cu100 Input range: -50 ~ 150℃
- Cu50:-50 ~ 150℃
- With Modbus communication protocol (R-8033+)

R-8034/R-8034+

4-channel RTD Input Module

- Channel: 4
- Resolution: 16-bit
- Analog Input Type: Pt or Cu100, Cu50, BA1, BA2, B53
- Sampling Rate: 10Hz
- Input Connection Type: 2, 3-wire
- Pt100 Input Range: +/-100℃, 0 ~ 100℃, 0 ~ 200℃,
  0 ~ 600℃
- Cu100 Input range: -50 ~ 150℃
- Cu50: -50 ~ 150℃
- With Modbus communication protocol (R-8034+)

R-8036/R-8036+

6-channel RTD Input Module

- Channel: 6
- Resolution: 16-bit
- Analog Input Type: Pt or Cu100, Cu50, BA1, BA2, B53
- Sampling Rate: 10Hz
- Input Connection Type: 2, 3-wire
- Pt100 Input Range: +/-100℃, 0 ~ 100℃, 0 ~ 200℃, 0 ~ 600℃
- Cu100 Input range: -50 ~ 150℃
- Cu50: -50 ~ 150℃
- With Modbus communication protocol (R-8036+)

R-804X Open Collector Output/ Optic Isolated

R-8041/R-8041+

14-channel Isolated Digital Input Module

- 14-channel Single-ended Input
- Input High: 3.5V~30V
- Input Low: 0~1V
- Isolated Voltage: 3750V
- Input Impedance: 3KΩ
- With Modbus communication protocol (R-8041+)

R-8042/R-8042+

13-channel Isolated Open Collector Output Module

- Digital Output: 13-channel open collector
- Max Load: 30V, 100mA
- Isolated Voltage: 3750V
- Direct drive power relay module
- With Modbus communication protocol (R-8042+)

R-8043/R-8043+

16-channel Non-isolated Open Collector Output Module

- Digital Output Channel: 16-channel Open Collector
- Max Load: 30V, 100mA
- Direct drive power relay module
- With Modbus communication protocol (R-8043+)

Digital Input Module

R-8044/R-8044+

4-channel Isolated Digital Input/8-channel Open Collector Output Module

- 4-channel single-ended digital input
- High Voltage: 3.5V to 30V
- Low Voltage: 0 to 1V
- Isolation Voltage: 3750V
- 8-channel digital output
- Max Open Collector Output: 30V
- Max Output Current: 375mA per channel
- With Modbus communication protocol (R-8044+)

R-8050/R-8050+

7-channel TTL Level Digital Input/ 8-channel Open Collector Output Module

- Digital Input Channels: 7
- TTL Level
- Logic Level 0: ≤+1V
- Logic Level 1: ≥+2.4V
- Dry Contact Input
- 8-channel digital output
- Max Open Collector: 30V, Max Load: 30mA
- Power Consumption: 300mW
- With Modbus communication protocol (R-8050+)

R-8051/R-8051+

16-channel Isolated Digital Input Module

- Input: 16-channel
- Input Voltage: 50V (max)
- Input Voltage Level
  Dry Contact; Logic Level 0: Ground,
  Logic Level1: Open
  Wet Contact; Logic Level 0: +3V (max),
  Logic Level1: +10V~50V
- Optic Isolation: 2500Vdc
- Power Consumption: 1W@24Vdc
- With Modbus communication protocol (R-8051+)

R-8052/R-8052+

8-channel Isolated Digital Input Module

- Input: 6-channel difference and 2-channel single-ended input
- Input High level: 3.5V~30V
- Input Low Level: 0~1V
- Isolated Voltage: 5000V
- Input Impedance: 3KΩ
- With Modbus communication protocol (R-8052+)

Output Module

R-8053/R-8053+

16-channel Dry Contact Digital Input Module

- Input: 16-channel single-ended
- Input High Level: 4V~30V
- Input Low Level: 0~1V
- Dry Contact put in
- With Modbus communication protocol (R-8053+)

R-8055/R-8055+

16-channel Isolated Digital I/O Module with LED Display and Modbus

- Input: 8-channel
- Output: 8-channel
- Digital output: open collector 40V（200mA Max load）
- Input Voltage Level
  Dry Contact; Logic Level 0: Ground,
  Logic Level1: Open
  Wet Contact; Logic Level 0: +3V (max),
  Logic Level1: +10V~50V
- Optic Isolation: 2500Vdc
- Power Consumption: 1W@24Vdc
- With Modbus communication protocol (R-8055+)

R-8057/R-8057+

12-channel Digital Input/4-channel Collector Output Module

- DI Channel: 12
- TTL level
- Logic Level 0:≦+1V
- Logic Level 1:≦+2.4V
- Dry Contact Input
- 4-channel digital output
- Max Open Collector 30V, max load in each channel: 300mA
- With ModBus Protocol (R-8057+)

R-8060/R-8060+

4-channel Isolated Digital Input/ 4-channel Relay Output Module

- 4-channel single-ended digital input:
  High Level: 3.5V~30V
  Low Level: 0~1V
- Input Isolated Voltage: 5000V
- Input Impedance: 3KΩ
- 4-channel Relay Output
- Contact Rating: 0.6A@125VAC,2A@30VDC
- With Modbus communication protocol (R-8060+)

R-8065/R-8065+

4-channel Isolated Digital Input/ 5-channel Relay Output Module

- 4-channel single-ended digital input:
- High Level: 3.5V~30V
- Low Level: 0~1V
- Input Impedance: 3KΩ
- Output: 5-channel Form *A* power relay
- Contact Rating: 5A@250VAC; 5A@30VDC
- Isolation Voltage: 3750V
- With Modbus communication protocol (R-8065+)

R-8068/R-8068+

8-channel Relay Output Module

- 8-channel Form *A* Relay Output
- Contact Rating: AC:1A@250VAC
  DC:2A@30VDC
- Relay Operating Time: 5ms
- With Modbus communication protocol (R-8068+)

R-8069/R-8069+

8-channel Power Relay Output Module with Modbus

- With LED Display
- Output: 8-channel Relay
- Contact Rating: AC:220V@5A
  DC:30V@5A
- Relay Operating Time: 5ms
- With Modbus communication protocol (R-8069+)

R-807X Intelligent Power Acquisition Module

R-807X Series Intelligent Electricity Acquisition Modules

The intelligent AC electricity measured series is the intelligent products used for synthesis parameter measurement of AC electricity, which could measure each phase voltage of three-phase AC circuit simultaneously, such as current and voltage, power factor, active power, reactive power, frequency, power factor, input active electrical degree, output active electrical degree, main electrical degree, reactive electrical degree, apparent power, main apparent power and so on.

This product interior integrated the miniature control computer chip, the digital signal processing chip, the standard correspondence connection, compatible RS-485 or the RS-232 connection, may complete functions and so on survey, calibration, hypothesis, telemetering, remote regulating.because the volume is small, the function are many, the precision is high, may use in many kinds of exchanges uses electricity the field survey, the measurement as well as the long-distance centralism originally copies the table, the monitoring management. Performance superior different, low in price.

R-8073/8073A Three-phase Full-parameter AC Electricity Transmitting Module

Specifications	R-8073	R-8073A
Measured Channels	three-phase current and voltage	Same as R-8073
Measured Parameters	the real effective value of current and voltage, power factor, active power, reactive power, frequency, power factor, input active electrical degree, output active electrical degree, main electrical degree, reactive electrical degree, apparent power, main apparent power	Same as R-8073
Input Frequency	45~75Hz	
Voltage Range	10~500V, can measure higher voltage by appending,voltage transformer and setting voltage transformation ratio	35~75Hz
Current Range	Basic range is 0~5A, can measure greater current by appending current transformer and setting current transformation ratio.	Same as R-8073
Signal Processing	16bits A/D converter,6-channels, every channel,synchronistical AC samples at the speed of 4KHz.The real time data of module is real effective value of 1 second(refresh one time a second)	Same as R-8073
Overload Capability	Can measure exactly 1.4 times of range input; instant current(10 cycles) is 5 times, no damage when voltage range is 3 times.	Same as R-8073
Output Data	three-phase voltage Ua, Ub, Uc; three-phase current Ia, Ib, Ic; active power, reactive power, power factor, frequency, active power of each phase Pa, Pb, Pc; reactive power of each phase Qa, Qb, Qc; forward active electrical degree, reversed active electrical degree, forward reactive electrical degree, reversed reactive electrical degree.	Same as R-8073
Output Interface	RS-485	RS-485/ RS-232（Optional）
Communication Rate	1200/2400/4800/9600BPS	Same as R-8073
Communication Protocol	ASCII commands and MODBUS/ASCII protocol	Same as R-8073
Degree of Accuracy	current, voltage: 0.2, the rest: 0.5	Same as R-8073
Parameter Setting	module's address, communication rate, setting current and voltage transformation ratio by communication interface	Same as R-8073
Power Supply	+10V~+30V DC or 220V AC	+10V~+30V DC
Built-in real-time clock provides the information of year, month, day, and hour, minute and second, to make sure supplying electricity uninterruptedly for 10 years with lithium cell.		

R-8074

Three-phase Full Parameter AC Electricity Acquisition Module

Main Features	R-8074	R-8074A
Measured Channels	Three-phase voltage and current, and expansi on I/O function	same as R-8074
Measured Parameter	the real effective value of current and voltage, power factor, active power, reactive power, frequency, power factor, input active electrical degree, output active electrical degree, main electrical degree, reactive electrical degree, apparent power, main apparent power.	same as R-8074
Input Frequency	47～75Hz	same as R-8074
Voltage Range	10~500V, can measure higher voltage by appending voltage transformer and setting voltage transformation ratio	same as R-8074
Current Range	Basic range is 0~5A, can measure greater current by appending current transformer, and setting current transformation ratio.	same as R-8074
Signal Processing	16bits A/D converter,6 channels, every channel synchronistical AC samples at the speed of 4KHz.The real time data of module is real effective value of 1 second(refresh one time a second)	same as R-8074
Overload Capability	Can measure exactly 1.4 times of range input; instant current (10 cycles) is 5 times, no damage when voltage range is 3 times.	same as R-8074
Output Interface	RS-485/RS-232 (optional)	same as R-8074
Communication Rate	1200/2400/4800/9600BPS	same as R-8074
Communication Protocol	MODBUS/ASCII protocol	same as R-8074
Degree of Accuracy	current, voltage: 0.2, the rest: 0.5	same as R-8074
Parameter Setting	diaphragm keyboard input	same as R-8074
Power Supply	220VAC	same as R-8074
Display	LCD display	same as R-8074
Harmonic	-	1~31
Built-in real-time clock provides the information of year, month, day, and hour, minute and second, to make sure supplying electricity uninterruptedly for 10 years with lithium cell.		

Remark：**RemoDAQ-8074A has other optional configuration functions except the above. If necessary, please contact sales.**

Expansion Connector Name	I/O	channels	I/O features
RemoDAQ-8074-OPT-1	digital input	2-channel	optic isolation, high level 3.5V～30V, low level 0～1V input impedanc 3KΩ
	relay output	2-channel	contact rating 5A/250V/AC或5A/30V/DC； could set electric parameter alert output, set ups and collars of electricity parameter in reference to the data format introduction in 8.3
	pulse output of electricity degree	2-channel	input active electricity degree and reactive electricity degree pulse output, output mode is open collector output, output pulse width is 100ms, open collector up to 30V, max load 30mA

R-808X Timing Counting and Digital Output Module

R-8080/R-8080+

2-channel Frequency/Counter Input Module

- Two independent 32-bit counters
- Frequency Input: Max: 100K Hz
- Input: 3750V isolation or non-isolation
- Support Modbus Protocol (R-8080+)

R-8080D

2-channel Frequency/Counter Input Module

- Two independent 32-bit counters
- Frequency Input: Max: 100K Hz
- Input: 3750V isolation or non-isolation
- 5-bit 7-segment digital LED display

RemoDAQ-8187 Programmable Communication Controller

- 10/100Base-Ethernet interface
- electronic mail alert function
- built-in Web Server
- built-in FTP ServertClient
- support 4-channel DI and DO（R-8187A）
- standard TCP and UDP Socket
- optional 4 bit7 fragment LED display
- supoport Modbus/RTU and Modbus/TCP
- 1.5MB Flash ROM/640 KB SRAM
- 4 serial ports, could reach 8 serial ports

Specifications

· CPU	16-bit microprocessor1.5MB Flash
· Flash Disk	1.5MB Flash Memory 256KB System Flash 256KB Flash 1024KB file system, 960KB for user applications
· Memory	640KB SRAM, max 384KB with battery backup
· Operating System	ROM-DOS(MS-DOS)
· Timer BIOS	Yes
· Real-time Clock	Yes
· Watchdog Timer	Yes
· COM1	RS-232((full modem signal)
· COM2	RS-485
· COM3	RS-485
· Programming Port/COM4	RS-232/485 RS-232/485 interface RS-232 interface (TX, RX, GND) RS-485 interface
· State	Power Supply, CPU, Communication and battery
· CPU consumption	4W
Digital Input :	
· Channels	4
Dry contac	Logic level 0：GND Logic level 1：Open
Wet contact	Logic level 0：+2V (max) Logic level 1：4V~30V

Digital Output:	
· Channels	4 Open collector +40V, 200mA max load
Network:	
Ethernet Rate	10/100 Mbps
·RS-485 Rate	1200～115.2 Kbps
·Max Node Number	every COM port connects to 256 multi-station system at most

Software Support:

C Function Library	Borland C+ + 3.0 for DOS
Power Supply	Non-conditioning +10~30VDC, reversing protection

Environment:	
·Operating temperature	−10～70℃
·Storage temperature	-25℃～85℃
·Humidity	5～95%,non-condensing

Ordering Information:

·R-8187: Ethernet Communication Controller

·R-8187A: Ethernet Communication Controller, add 4DI+4DO

R-8350

18-channel Isolated Digital I/O Module

Specifications

Channels: 18
I/O Type: 12DI&6DO
Digital Input:
- Dry Contact: Logic Level 0: GND
- Logic Level 1: Open
- Wet Contact: Logic Level 0: +3V (max)
- Logic Level 1: +10V~30V

Digital Output:
Open Collector 30V (200mA Max Load)
Optic Isolation: 2000VRMS
Power Consumption: 2W (typically)

Ordering Information:
Ordering Information:
R-8350: 18-channel Isolated Digital I/O Module

R-8351

16-channel Isolated Digital I/O Module with Timer

Specifications

Channels: 16
I/O Type: 12DI/2DO/2 Timer
Digital Input:
- Dry Contact: Logic Level 0: GND
- Logic Level 1: Open
- Wet Contact: Logic Level 0: +3V (max)
- Logic Level 1: +10V~30V

Digital Output:
- Open Collector 30V (200mA Max Load)

Optic Isolation: 2000VRMS
Timer:
- Max Timing: 4,294,967,285 (320bit)
- Input Frequency: 0.3~1000Hz
- max. (Frequency Mode)
- 5000Hz max. (Timing Mode)
- Isolation Voltage: 2000VRMS
- Mode: Timers, frequency
- Power Consumption: 2W (typically)

Ordering Information:
R-8351: 16-channel Isolated Digital I/O Module with Timer

R-8352

16-channel Source Digital I/O Module

Specifications

Channels: 16
I/O Type: 8DI & 8DO
Digital Input:
Dry Contact: Logic Level 0: GND
Logic Level 1: Open
Wet Contact: Logic Level 0: +3V (max)
Logic Level 1: +10V~30V
Digital Output: 35DC (source)
Optic Isolation: 2000VRMS
Power Consumption: 2W (typically)

Ordering Information:
R-8352: 16-channel Source Digital I/O Module

R-8360

6-channel DI/6 Relay Module

Specifications:
Channels: 12
I/O Type: 6-channel Rely & 6-channel DI
Relay Output (Form *A*)
Contact Power: AC:120V@0.5A
DC:30V@1A
Puncture voltage: 500VAC (50/60Hz)
Relay Turn-on Time: 7 ms
Relay Cut Time: 3ms
Total Switch Time: 10 ms
Insulation Resistance:
Minimum 1000MΩ (500VDC)
Digital Input: Dry Contact:
Logic Level 0: GND
Logic Level 1: Open
Wet Contact:
Logic Level 0: +3V (max)
Logic Level 1: +10V~30V
Optic Isolation: 2000VRMS
Power Consumption: 2W (typically)

Ordering Information:
R-8360: 6-channel Isolated Digital Input and 6-channel Relay Module

R-8366

6-channel DI/6 Power Relay Module

Specifications:
Channels: 12
I/O Type: 6-channel Relay & 6-channel DI
Relay Output (Form *A*) Contact Power:
AC:120V@0.5A
DC:30V@1A
puncture voltage: 500VAC (50/60Hz)
Relay Turn-on Time: 7 ms
Relay Cut Time: 3ms
Total Switch Time: 10 ms
Insulation Resistance: Minimum 1000MΩ (500VDC)
Digital Input: Dry Contact:
Logic Level 0: GND
Logic Level 1: Open
Wet Contact:
Logic Level 0: +3V (max)
Logic Level 1: +10V~30V
Optic Isolation: 2000VRMS
Power Consumption: 2.5W (typically)

Ordering Information:
R-8366: 6-channel Isolated Digital Input and 6-channel Power Relay Module

R-8336

6-channel RTD Module With 2-channel DO

Specifications:
Channels: 6-channel difference
Effective Resolution: 16-bit
Input Type: Pt, Balco and Ni RTD
RTD Type and Temperature Range: Pt-100RTD
Pt100 a=0.00385 -100℃- +100℃
Pt100 a=0.00385 0℃- +100℃
Pt100 a=0.00385 0℃- +200℃
Pt100 a=0.00385 0℃- +600℃
Pt100 a=0.003916 -100℃- +100℃
Pt100 a=0.003916 0℃- +100℃
Pt100 a=0.003916 0℃- +200℃
Pt100 a=0.003916 0℃- +600℃
Cu100 -50℃- +150℃
Cu50 -50℃- +150℃
BA1 -200℃- +650℃
BA2 -200℃- +650℃
G53 -50℃- +150℃
Isolation Voltage: 2000V DC
Sampling Rate: 10 MS/s
Input Impedance: 10MΩ
Input Connection Mode: 2-wire or 3-wire
Accuracy: ±0.1% or higher
Zero Drift: ±3μV/℃
Full Range Drift: ±25ppm/℃
CMR@50/60Hz 150db
NMR@50/60Hz 100db
Built-in watchdog timer
Power Requirement: Non-conditioning 10~30VDC
Power Consumption: 2W
Ordering Information:
R-8336:_ 6-channel RTD Input Module

R-8317

8-channel Analog Input Module with DO

Analog Input:
Effective Resolution: 16-bit
Channel: 8-channel difference
Input Type: mV, V, mA
Input Range: ±150mV, ±500mV, ±5V, ±10V,
0-20mA, 4-20 mA
Isolation Voltage: 2000VDC
Malfunction and Overload Protection:
Max Voltage: ± 35V
Sampling Rate: 10MS/s
Input Impedance: 20MΩ
Bandwidth: 13.1Hz@50Hz 15.72Hz@60Hz
Accuracy: ±0.1% of higher
Zero Drift: ±6μV/℃
Full Range Drift: ±25ppm/℃
CMR@50/60Hz 92db

Digital Output:
Channels: 2, Open Collector 30V, 100mA Max Load
Optic Isolation: 2000 V RMS

Power Supply:
Power Requirement: Non-conditioning 10~30VDC
Power Consumption: 2W
Built-in watchdog timer

Ordering Information:
R-8317: 8-channel Analog Input Module with DO

R-8317A

3 Channel Differential or 5 Channel single-end AI, 8 Channel Isolated DI 4 Channel DO Ethernet-based Data Acquisition Module

- Effective Resolution: 16-bit
- Channel: 5 channel single-end or 3 channel difference
- Input Type: mV, V, mA
- Input Range: ±150mV, ±500mV, ±1V, ±5V, ±10V, 20mA
- Isolation Voltage: 2000VDC
- Malfunction and Overload Protection: Max Voltage: ± 35V
- Sampling Rate: 10MS/s Input Impedance: 20MΩ
- Bandwidth: 13.1Hz@50Hz 15.72Hz@60Hz
- Accuracy: ±0.1% of higher
- Zero Drift: ±6μV/° C
- Full Range Drift: ±25ppm/° C
- CMR@50/60Hz 92db Digital Input:
- Channels: 8
- Dry contact: Logic level 0,Close to Ground
Logic level 1,Open
- Wet contact: Logic level 0,+3V (max) Logic level 1,10V~30V
- Optic Isolation: 2000 V RMS Digital Output:
- Channels: 4, Open Collector 30V, 100mA Max Load
- Optic Isolation: 2000 V RMS
Power Supply:
- Power Requirement: Non-conditioning 10~30VDC
- Power Consumption: 2W
- Built-in watchdog timer

Ordering Information:
- R-8317A 3 Channel Differential or 5 Channel single-end AI, 8 Channel Isolated DI,4 Channel DO Module

R-8318

8-channel Thermocouple Input Module with DO

Effective Resolution: 16-bit
Channels: 8-channel difference
Input Type: Thermocouple
Thermocouple Type and Range:
J0~760℃
K0~1370℃
T-100~400℃
E0~1000℃
R 500~1750℃
S 500~1750℃
B 500~1800℃
Isolation Voltage: 2000VDC
Malfunction and Over voltage Protection:
Max Voltage: ± 35V
Sampling Rate: 10MS/s
Input Impedance: 7MΩ
Bandwidth: 13.1Hz@50Hz 15.72Hz@60Hz
Accuracy: ±0.1% or higher
Zero Drift: ±6μV/℃
Full Range Drift: ±25ppm/℃
CMR@50/60Hz: 92db
Power Supply:
Power Requirement: Non-conditioning 10~30VDC
Power Consumption: 2W
Built-in watchdog timer

Ordering Information:
R-8318: 8-channel Thermocouple Input Module with DO

R-8324

12-channel Universal I/O Modules

Analog Output:
Channel：4
Effective Resolution: 12-bit
Output Range: 0~10VDC,0~20mA, 4~20mA
Drive Voltage: 5VDC（current output）
Isolation Voltage: 2000VDC
Accuracy: 0.05% of full range
Zero Drift: ± 50ppm/℃
Sampling Rate: 10MS/s
Digital Input:
Channel: 4
Dry Contact
Logic Level0：Ground
Logic Level1：Open
Wet Contact：
Logic Level0：+3V Max
Logic Level1：+10V~30VDC
Digital Output:
Channel：4
Open Collector：30V， max load 100mA
Power Supply：
Power Consumption: 4W (Topical)

Ordering Information:
R-8324: 12-channel Universal I/O module

R-8510A

RS-422/RS-485 Repeater Module

- Self-tuner inside
- Multiple Baud Rate: 300...9600...115,200bps
- Multiple Data Format
- Isolation Voltage: 3000V
- Auto-regulation rate and data format
- Power Consumption: 2.2W (max)
- Add RS-422 repeater function

R-8510

RS-485 Repeater Module

- Self-tuner inside
- Multiple Baud Rate: 300...9600...115,200bps
- Multiple Data Format
- Isolation Voltage: 3000V
- Auto-regulation rate and data format
- Power Consumption: 2.2W (max)

R-8513

1 Channel RS-485 to 3 Channel RS-485 Converter Module(Isolation on three way)

- Input: one RS-485 Data+, Data-
- Output: three RS-485:Data+,Data-
- Communication distance: maximum 1,200 m/9.6K bps; maximum 400 m /115.2K bps
- Maximum of 128 devices (without using a repeater)
-Support auto reverse
-Speed: 300~115200 bps
- With ESD protection
- Isolation Voltage: 3000 VDC
- Power Supply: +10 ~ +30 VDC (non-isolated)
- Operating temperature: -25℃ ~ 75℃
- Storage temperature: -30℃ ~ 75℃
- Relative humidity：10~95% （non condensing）

Relay/Ethernet Switch Module

R-8515

5-Port 10/100Mbps Industrial Ethernet Switches

- Compatibility: IEEE 802.3, IEEE 802.3u
- Surge Protection: 3000VDC (Power Supply)
- LED Display: Power Supply, 10/100Mbps
- Power Requirement: Non-conditioning 10~30VDC; Power Consumption: 2.4W
- Operating Temperature: -10~70℃; Storage Temperature: -20~80℃
- Operating Humidity: 20~95% (Non-condensing); Storage Humidity: 0~95% (Non-condensing)
- Connector: 10/100Base-T Ethernet
- Ports: 5 x 10/100Mbps
- Linker: RJ-45

R-8515M

5-Port 10/100Mbps Industrial Ethernet Switches with Optic Fiber Port

- Compatibility: IEEE 802.3, IEEE 802.3u
- Surge Protection: 3000VDC (Power Supply)
- LED Display: Power Supply, 10/100Mbps
- Power Requirement: Non-conditioning 10~30VDC; Power Consumption: 3.5W
- Operating Temperature: -10~65℃; Storage Temperature: -20~80℃
- Operating Humidity: 20~95% (Non-condensing); Storage Humidity: 0~95% (Non-condensing)
- Connector: 10/100Base-T & 100Base-FX Ethernet
- Ports: 4 x 10/100Mbps (RJ-45), 1 X 100Mbps (optic fiber)
- Linker: RJ-45 & 1 x optic fiber (Form *SC*)

R-8520/R-8520R

Isolated RS/232 to RS/485 Converter Module

- One end is RS-232 standard; the other is RS-485
- Internal *Self Tuner*
- Speed: 300~115.2Kbps
- Maximum of 256 modules in a single RS-485 network (without using a repeater)
- Isolation Voltage: 3000V
- Support various speed and data format
- Communication distance: 2.1Km/9600bps; 2.7Km/4800bps;3.6Km/2400bps
- Isolated end is on RS-485 connector ,Isolated end is on RS-232 connector
- The best choice for PLC users

R-8520A/R-8520AR

Isolated RS/232 to RS-422/485 Converter Module

- One end is RS-232 standard; the other is RS-485
- Internal *Self Tuner*
- Speed: 300~115.2Kbps
- Isolation Voltage: 3000V
- Support various speed and data format
- Communication distance: 2.1Km/9600bps; 2.7Km/4800bps; 3.6Km/2400bps
- Isolated end is on RS-232 connector ; Isolated end is on RS-422/485 connector
- The best choice for PLC users

R-8542

Single-mode Fiber Optics to RS-232/422/485 Converter

Main Features

- Easily mounted on a DIN-rail, panel or piggyback
- Transmission speed is up to 115.2 kbps
- R-8541Optical distance is up to 2.5km (measured by 62.5/125mm fiber optics)
- Half/Full-duplex, bidirectional transmission mode
- Avoid lightning strikes and EMI/RFI interference
- Prevents damage from electrostatic discharge
- Stable and error-free data transmission
- Automatic internal RS-485 Bus supervision
- No external flow control signals required for RS-485
- Transient suppression and over-current protection on RS-422/485 data lines
- Reserved space for termination resistors
- LED for power supply and data flow indication
- Power Requirement: +10 to + 30 VDC

Specifications

· Outside	shell body is ABS plastic, with installation accessories
· Communication Mode	Asynchronous
· Connector	Plug-in screw terminal
· Transmission Mode	Full/half duplex, bidirectional
· Transmission speed	up to 115.2 kbps
· Fiber Optic Port	SC
· Converting Mode	Single-mode
· Wavelength	1310nm
· Transmission Distance	15 km
· Optical Power Budget	9db (attenuation)
· Power Consumption	1W (typically), 1W (max)
· Operating Temperature	-10～70℃
· Operating Humidity	5～95%(non-condensing)
· Accessories(enclosure)	Nylon DIN-rail mounting adapter, SECC panel mounting bracket

Ordering Information:
R-8542: Single-mode Fiber Optics to RS-232/422/485 Converter

R-8554A GPRS DTU

NEW

Antenna：Optional Sucked Type and Pole Type

Introduction

RemoDAQ 8554A GPRS DTU is wireless data transmission terminal designed for electricity system automation, industrial monitoring, traffic management, weather, environmental protection, pipe network monitoring, finance, security and other areas, It uses GPRS network platform to realize the transparent data transmission, and provides virtue communication network of high speed, forever on line, transparent data transmission for users

Specification

- Support RS-232/485 interface
- Support GSM900 and GSM1800
- Adopt the highest circuit exchanging rate 14.4kbps
- GPRS data
  GPRS Class 10
  Coding Scheme：CS1 - CS4
  Complies SMG31bis specification
- Interface
  Antenna：50 ohms/ SMA interface
  SIM card：3V
  Serial data and configuration interface：
  Type: RS-232/RS-485
  Data rate: 300~115200bits/s
  Swappable terminals spacing：3.5mm, 12Pin
- Power Consumption：Idle Current 30mA@+12VDC,
  Work Current 50～140mA@+12VDC
- Voltage Range：+12V ～ +30VDC, Ripple wave <300mV
- Relative Humidity≤95%（no condensing）
- Working Environment：Working Temperature -20℃ ～+60℃
  Storage Temperature -25℃ ～+70℃
- Fit for SMG31bis standard
- Weight: About 160g

Main features

- Adopts RS-232/ RS-485 industrial standard connector, easy for users to realize data control based on GPRS platform
- Swappable terminals, DIN rail
- Compact size, can be used either embedded or external
- Support high-speed, transparent/protocol data transmission, built-in software and hardware watchdog, Optimized EMC design, to ensure the DTU long time and stable running
- Support message, local serial port and remote center DTU graphics parameters maintenance
- Support Chinese and English SMS receiving, single-sending, group-sending function
- Support static data service center IP address, DNS and VPN
- Multi optional operating modes: peer to peer, peer to multi-point, center to multi-point data transmission, data/SMS trigger, network and SMS channel exchange freely
- Support center real serial port/virtual port with DTU peer to peer, peer to multi-points communication
- Adopts advanced power technology, wide power range, to improve the stability of equipment
- 7 x GPIO connectors reserved for customizing analog, digital acquisition, etc. functions which customers require

Ordering Information:
R-8554A Adopt SIMCOMM GPRS module

CDMA DTU（Modem) Wireless Communication Module

R-8552/8554 GPRS DTU

Introduction

It provides a quick and low-cost method to connect any with RS-232, RS-485 communication port's sensor, intelligentized device and industry control device, its also lets you adjust all settings easily to set up COM ports for one Windows 2000/XP platform, this helps you configure all ports to meet you requirements. GPRS DTU is extremely compact, it works normally at –10~50℃ and accepts wide unregulated voltage range from +7~24VDC, so it is suitable for harsh operating environments

Functional Features

- Support dual-direction transparent data transmission, high speed transmission, on line forever.
- Built-in watchdog with expectation reset. Adopt reliable design of multiple software and hardware to make sure the long-time stable operation of DTU.
- Support message, local and remote graphics parameters maintenance
- Support Chinese and English message, message receipt, single-sending, group-sending function
- Support the visit of data center static IP address, EDNS
- Support VPN
- Multi optional operating modes: peer to peer, peer to multi-point, center to multi-point data transmission, data/SMS trigger, network and SMS channel exchange freely
- Could customize working mode with the function of collecting analog and digital according to users' special requirements

Main Specifications

Antenna port：50Ω/SMA female
interface：Baud rate: 600bps～115200bps
Data format: 1 start-bit, 8 data bit, 1 stop bit
Type: RS-232/RS-485
Power supply： DC+10V～30V/1A extend power voltage and
DC+5V/1.5A power voltage
Working Current(Max): 90mA/+24VDC
Working temperature： -20℃～+60℃,
Storage temperature: 50℃,30%～80% (non-condensing)
Weight: 150g

Topical Application

Voltage transformer remote monitoring system,RTU intelligent electric measurement and control terminal, Streetlights monitoring terminal, Electrical pump well monitoring terminal,Oil sucking machine remote monitoring system

Ordering system

R-8552 DTU：Adopt WAVECOMM GPRS module
R-8554 DTU：Adopt SIMCOMM GPRS mudule

Antenna：optional sucked type and pole type

RemoDAQ-855X RS-232/485/422/Ethernet To GPRS/

R-8555/8555A CDMA DTU

NEW

Introduction

It provides a quick and low-cost method to connect any with RS-232, RS-485 communication port's sensor, intelligentized device and industry control device, its also lets you adjust all settings easily to set up COM ports for one Windows 2000/XP platform, this helps you configure all ports to meet you requirements. CDMA DTU is extremely compact, it works normally at –10~50℃ and accepts wide unregulated voltage range from +7~24VDC, so it is suitable for harsh operating environments

Functional Features

- Support dual-direction transparent data transmission, high speed transmission, on line forever.
- Built-in watchdog with expectation reset. Adopt reliable design of multiple software and hardware to make sure the long-time stable operation of DTU.
- Support message, local and remote graphics parameters maintenance
- Support Chinese and English message, message receipt, single-sending, group-sending function
- Support the visit of data center static IP address
- Support VPN
- Multi optional operating modes: peer to peer, peer to multi-point, center to multi-point data transmission, data/SMS trigger, network and SMS channel exchange freely
- Could customize working mode with the function of collecting analog and digital according to users'special requirements

Main Function

- Antenna port：50Ω/SMA female
- interface: Baud rate: 600bps~115200bps,
  Data format: 1 start-bit, 8 data bit, 1 stop bit
  Type: RS-232/RS-485
- Power supply：DC+10V~30V/1A extend power voltage and DC+5V/1.5A power voltage
  Operating current （Max）：90mA/+24VDC
- Weight：120g
- Operating temperature：-20~+60℃
- Operating humidity：30~80% non-condensing

Topical Application

Voltage transformer remote monitoring system, RTU intelligent electric measurement and control terminal, Streetlights monitoring terminal, Electrical pump well monitoring terminal, Oil sucking machine remote monitoring system

Ordering Information

R-8555 CDMA DTU: Adopt CM320 CDMA module
R-8555A CDMA DTU: Adopt EM200 CDMA module

Antenna: optional sucked type and pole type

CDMA DTU（Modem) Wireless Communication Module

R-8555　CDMA Modem

Introduction

This modem has built-in wireless communication model, standard RS-232/RS-485 port and SIM card interface, users can use AT command through serial port to set up and dial- up networking, data communication on PC(by using TCP/IP, PPP protocol).By using GPRS Modem , it can quickly build up wireless data communication network, to achieve in-time far distance data transmit, GPRS Modem can supply simple, convenient and practical wireless data communication solutions within vas fields such as data collection and remote monitoring.

Product Features

- Adopt 10V-30V extend power supply and SMA antennal interface, Users could communicate with Internet through RS-232 without the need of other peripherals
- Swappable terminals, DIN rail
- Compact size, could be embedded and external

Main specifications

- Single frequency 800MHz, CDMA20001xRTT module
- Execution standard：FCC/SAR and CDG1, 2&3
- SIM slot
- Support data, audio, message
- Support DTMF
- A5/1&A5/5 encryption algorithm
- SMS：MT/MO/CB/PDU mode
- Support AT command setting
- Adopt industrial standard interface RS232

Ordering Information

R-8555 CDMA Modem：Adopt CM320 CDMA module
Antenna：optional sucked type and pole type

R-8561 1-Port Iisolated USB to RS-232/422/485 Converter

Specifications

• Compatibility	USB v1.1 standard
• Interface	network: USB
• Terminal	1 RS-232/422/485
• Connector	Network: USB A-type (with A-type convert to B-type cable) Serial port: twisted paired
• Transmit speed	50bps to 115.2Kbps
• Parity bit	Odd, even, none
• Data bit	5, 6, 7, 8
• Stop bit	1, 1, 5, 2
• RS-232 signal	Tx,Rx,GND
• Surge protection	3000VDC(RS-485)
• Isolation protection	3000VDC(RS-232/422/485)
• Drive support	Windos98/2000/ME/XP,Linux
• Power consumption	270mA@5V (typical) 300mA@+5V (Max)
• Max distance	15feet (4.6m)
• Chassis	ABS/PC plastic, with install device
• Installation	DIN rail/panel/stacked install
• Operating	0~70℃
• Storage temperature	-25~80℃
• Operating humidity	20~95% (non-condensing)
• Storage humidity	0~95% (non-condensing)

Ordering Information:
R-8561 1-port Isolated USB to RS-232/422/485 Converter

R-8570 2-Terminal RS-232/422/485 to Ethernet Terminal Server

Specifications

• Protocol	TCP/IP
• Network	10/100 Base-T Ethernet
• Terminal	1/2 independent RS-232/422/485
• Interface	network: RS-45 Serial port: RJ-48 (with RJ-48 convert to DB9 cable)
• Transmit speed	50bps to 230Kbps
• Parity bit	odd, even, none, space, mask
• Data bit	5, 6, 7, 8
• Stop bit	1, 1.5, 2
• LED display light	network: Tx, Rx, connection, speed (10/100Mbps), power, Serial port: Tx, Rx, status
• Surge protection	15KVESD(RS-232/422/485)
• Tool software	auto-check configure tool (Max 128 devices) terminal redirect tool
• Drive support	Windows98/2000/NT/XP
• Power requirement	unconditioned 10to30VDC
• Power consumption	1.5W
• Installation	DIN rail, panel, and stacked install
• Operating	0 ~ 60℃
• temperature	-20 ~ 80℃
• Operating humidity:	20~95% (non condensing)
• Storage humidity	0~95% (non condensing)

Ordering Information:
R-8570 2 terminal RS-232/422/485 to Ethernet terminal server (with 2X1M RJ-48 convert pin DB9 RS-232/422/485 cable)

R-8578 1-Terminal Serial Equipment Network Server

Specifications

• Protocol	TCP/IP, UDP
• Standard Network API	WinSock, Socket
• Network type	polling, event handling, P2P, multi mainframe visit
• Network Terminal	IEEE 802.3, IEEE 802.3μ
• Interface	network: 10base-T Serial port:1x RS-232, 1xRS-485 network:RJ-45
• Connector	Serial port:wire connecting terminal
• Transmit speed	4800bps to 15,200Kbps
• Parity bit	odd, even, none, space, mask
• Data bit	7, 8
• Stop bit	1, 1.5, 2
• Tool software	auto-check configure tool (Max 128 devices) equipment, Easy to diagnose download and check tool software UDP test tool software
• Power requirement	unconditioned 10to30VDC, with surge protection
• Power consumption	2W
• Installation	DIN rail, panel, and stacked install
• Operating temperature	-20~85℃
• Storage temperature	-40~85℃
• Storage humidity	20~95% (non condensing) 0~95% (non condensing)

Ordering Information:
R-8578 2 terminators serial equipment network server

R-8578A 1-channel RS-232/485Serial Port Internet Module, 10/100Base-T

Specifications

• Protocol	TCP/IP, UDP
• Standard Network API	WinSock, Socket
• Network Terminal	IEEE 802.3, IEEE 802.3μ
• Interface	network: 10/10010bBase-T Serial port: 1x RS-232, 1xRS-485
• Connector	network: RJ-45 Serial port: wire connecting terminal
• Transmit speed	4800bps to 15,200Kbps
• Parity bit	odd, even, none, space, mask
• Data bit	5, 6, 7, 8
• Stop bit	1, 1.5, 2
• Tool software	auto-check configure tool (Max 128 devices)equipment, Easy to diagnose download and check tool softwareUDP test tool software
• Power requirement	unconditioned 10to30VDC, with surge protection
• Power consumption	2W
• Installation	DIN rail, panel, and stacked install
• Operating temperature	-20~85
• Storage temperature	-40~85
• Operating humidity	20~95% (non condensing)
• Storage humidity	0~95% non condensing

Ordering Information:
R-8578A 1 terminators serial equipment network server

RemoDAQ-858X RS-232 to M-BUS Converter

R-8580 RS-232 to M-BUS Converter Module

Specifications

- Maximum: 64 M-BUS device
- Operating temperature: -10~70
- Humidity: 5~95% non condensing
- Transmit speed (bps): 300,1200,2400,9600
- RS-232 Port connector: DB9 Female
- M-BUS Port connector: Plug-in screw terminal

RemoDAQ-8063/8063+8 Channel Isolated DI / 3 Channel Relay Output Module

Specifications

- 8-channel single-ended digital input:

High Level: 3.5V~30V

Low Level: 0~1V

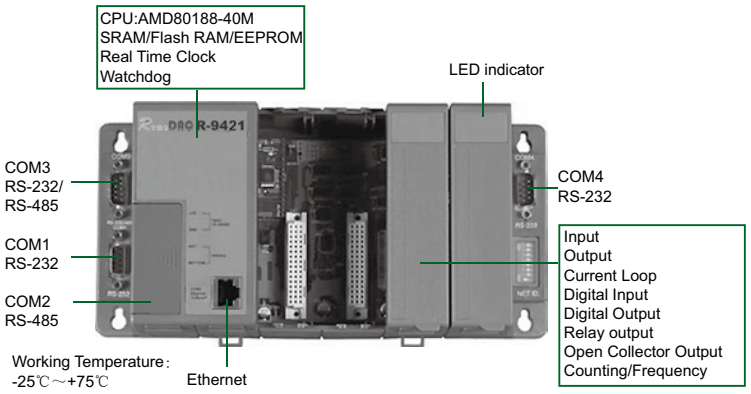
- Input Impedance: 3KΩ
- Output: 3-channel Form “A” power Relay
- Contact Rating: 5A@250VAC；5A@30VDC
- Isolated Voltage: 3750V
- With Modbus communication protocol (R-8063+)

RemoDAQ-9000 Embedded

RemoDAQ-9000 Profile MADE

Ⅰ.Introduction

RemoDAQ-9000 is the compact, embedded controller based on RS-485 or Ethernet, which could be the standard PAC system if it is configured with IEC61131-3 standard programmable language. It is convenient to install because of its compact size, hardness. We also absorb the advantages of others' similar products in circuit in foreign or domestic market to make it have more high reliability and excellent anti-interfere, It contains rich function libraries, drive procedure and practice procedure used for debugging, and supports many communication protocols such as Modbus/RTU, Modbus/TCP, ASCII and so on. Software is easy to program. RemoDAQ-9000 could be configured with multiple configuration software, or communicate, transmit data and commands with HMI.

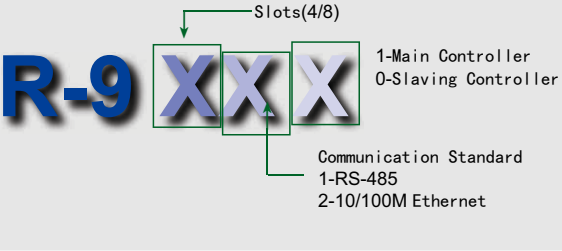


Ⅱ. Classification

An acquisition controller consists 5 parts: CPU modules. Power supply, 4 or8 slots backplane, I/O modules and solid system software.

The basic system of RemoDAQ-9000 is classified according to communication interface type of CPU module, the quantity of backplanes, the type of solid software, and if it could operate independently.

Naming Method



Data Acquisition Controller

IN CHINA SELF-DEVELOPING

Main represents this controller could operate independently without upper computer. User could program and debug with the help of upper computer. Final procedure can be loaded into the controller. This kind of controller has solid embedded OS such as ROM DOS or Windows CE.

slaving represents this controller must be used together with upper computer, which could only analyze the command from upper computer and process accordingly, but could not operate without upper computer, This kind of controller just has simple monitoring software .

If the CPU module is in the curing of both embedded OS and the engine of KW software, this controller is called as soft logic controller or PAC controller. The soft logic controller is specially designed for those users who are similar with PLC programming language, In terms of the above,

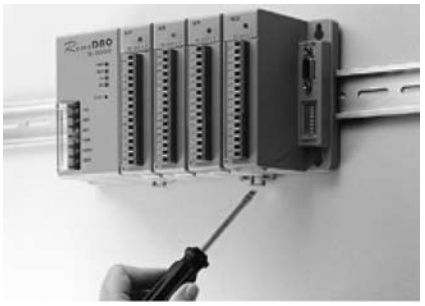
Gemotech RemoDAQ-9000 Controller Includes the Following 10 Models:

RemoDAQ-9410——4 slots, based on RS-485 slaving controller
RemoDAQ-9810——8 slots, based on RS-485 slaving controller
RemoDAQ-9820——8 slots, based on Ethernet slaving controller
RemoDAQ-9420——4 slots, based on Ethernet slaving controller
RemoDAQ-9421——4 slots, based on Ethernet and ROM DOS main controller
RemoDAQ-9821——8 slots, based on Ethernet and ROM DOS main controller

III. Features

1. More compact structure

The backplane of every controller could insert 4~8 I/O modules and up to 128 I/O, suitable for I/O relative centralism application situation.



DIN Rail Installation

Installed on Industrial DIN Rail

2. Higher cost performance

Developer kits is richer because the software and hardware sources of RemoDAQ-9000 are based on PC, having higher cost performance compared with traditional PLC

3. Rich communication interface

The basic system supports 3~4 serial ports and one Ethernet, also could expand serial ports

4. 3-end isolation

RemoDAQ-9000 provides three-end isolation of I/O module(3000VDC),power supply(3000VDC), communication wiring(3000VDC) to avoid the formation of ground loop, reducing the influence of interfere for the system.

5. Watchdog

Watchdog could monitor the system and automatically reset the system to avoid a system crash.

6. Built-in diagnostic function

RemoDAQ-9000 offers 2 kinds of diagnostic methods, hardware self-checking and software diagnosis. This could help users to recognize and check the malfunction of I/O modules

7. OPC SERVER

OPC is the standard interface of industrial control device server, which could make control devices such as RemoDAQ-8000and other I/O equipment to communicate with HMI/SCADA software packages on server and exchange data, Gemotech provides RemoDAQ, Modbus and Modbus/TCP OPC SERVER, which fit for OPC standard.

8. Modbus/RTU and Modbus/TCP driving procedure

RemoDAQ-9410/9420/9810/9820/9421/9821 supports Modbus/ RTU and Modbus/TCP,through which you could connect it to HMI/SCADA software such as iFIX,Intouch, wincc and so on

8. DIN rail and Panel mounting, convenient to maintenance

9.fulfill the demands of industrial application

Working temperature：-20~+70℃

Power supply：+10~+30VDC

Panel/Wall Installation

Surface Mounting

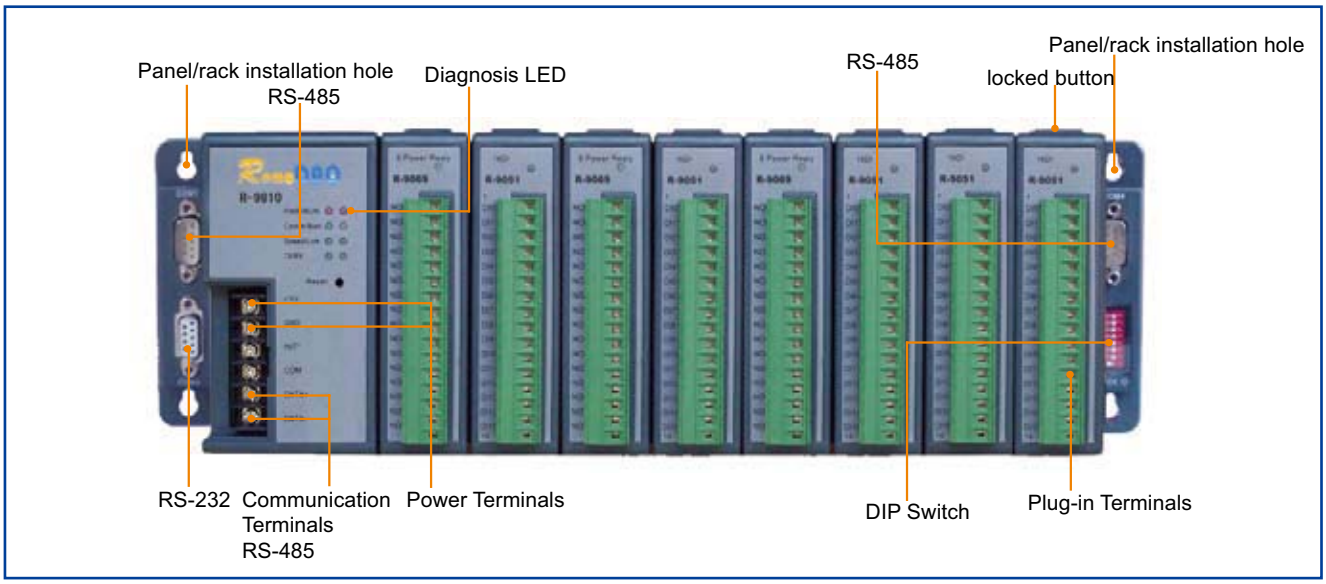
Node ID Setting

8-bit Dial Switch Setting

Wiring

Insert Advanced Connected I/O Module Terminals

RemoDAQ-9410/9810

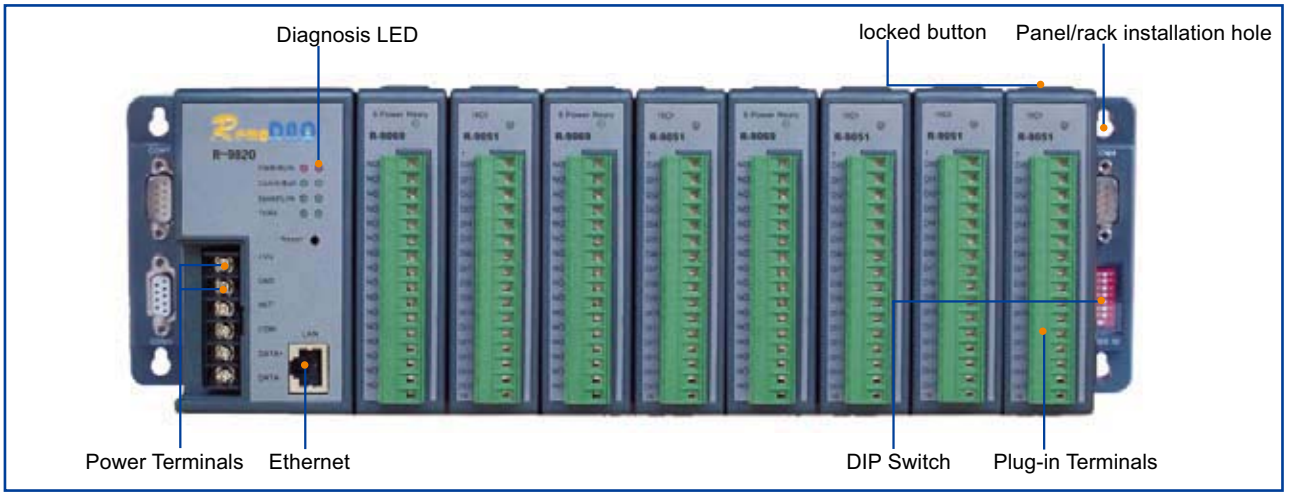


Main Features

- easy to install and networking RS-485 communication
- each system has 4 or 8 slot, Max can support 128 I/O point
- Support various software including Windows DLL driver, OCX driver, OPC server and HMI/SCAPA software driver.
- With surge protection, avoid system to be damaged by dangerous voltage and power transients
- Can use one R-8510 repeater to expand network, each system can have Max 256 R-9000 unit, max transmit distance can reach 10km

Processor:	
·CPU	16 Micro processor
·I/O model capacity	4 or 8
·Built-in watchdog	Yes
·Power consumption	1.0W(R-9410); 4.0W (R-9810)
Isolation protection	
·Communication	2500 VDC(R-9410)
·Isolation	3000 VDC(R-9810)
·Isolation protection	communication power 3000VDC
·I/O model isolation	3000 VDC
Diagnosis	
·Status display	Power, CPU< communication
·Self-test	self-test when power on
·Software diagnosis	enabled
Communication	
·Network:	RS-232or RS 485(2-wire) to mainframe
·Rate(bps):	1200, 2400, 4800, 9600, 19.2K, 38.4K, 57.6K,和115.2Kbps
·Max communicate distance	4000 feet（1.2km）
·Command format	ASCII command/response protocol
·Reliability check:	with checksum communication error check
·Asynchronous communication data format	1 start bit, 8 data bit, 1 stop bit, with no check
·Max vertices	each PC serial port can connect 256 sections system
·Protection	Surge protection on RS-485 Communication
Power requirement	
Unconditioned	+10-30V DC
Reverse power protection	
·Power protection	suppress current transient behavior
Mechanical features	
·Classis	KJW plastics, with install accessories
·Plug-in screw terminator	diameter of lead 0.05mm2 to 2.5mm2, 1-＃12 or 2-＃14 to ＃22AWG
Environment	
·Operating temp	-10～70℃
·Storage temp	-10～85℃
·Humidity	5～95 %,non-condensing
Order Information:	
·RemoDAQ-9410	RS485 (4 slots) distributed data acquisition control system.
·RemoDAQ-9810	RS485 (8 slots) distributed data acquisition control system

RemoDAQ-9420/9820



Features :

- ARM 32-bit RISC CPU
- 10/100 base-T automatically check high speed communication terminal
- Support Modbus/TCP communication protocol, easy to integrate
- Support UDP event dealing function
- Can transmit 100M without any repeater
- Can remote configure through Ethernet
- Allow 8 PC visit at the same time
- 4 I/O slot can support 64 point data monitor(RemoDAQ-9420)
- 8 I/O slot can support 128 point data monitor(RemoDAQ-9820)
- 1500VDC Ethernet communication isolation
- Build-in system auto-reposition watchdog
- Windows tool: I/O model configure and calibrate, network automatically search data stream setup, present status monitoring and warning trigger.
- Provide ActiveX driver for user developing

Processor :

·CPU	32-bit RISC CPU
·I/O model capacity	4/8 slot(RemoDAQ-9420/9820)
·Memory	4MB RAM 512KB Flash ROM
·Operating system	real-time OS
·Status display	power (3.3V, 5V), CPU, communication (link, active, 10/100Mbps, TX, RX)
·CPU power consumption	5.0W
·Reset switch	Yes
Isolation protection	
·Ethernet Communication	1500 VDC
·Communication power	3000 VDC
·I/O model isolation	3000 VDC
Diagnosis	
·Power up Self test	hardware and software

Ethernet	
·Interface	10/100Base T
·Lead	UTP, 5 or higher wire
·Bus connection	RJ45 model slot
·Communication protocol	Modbus/TCP,TCP,UDP,IP,ARP
·Data transmitting speed	Max 100Mbps
·Max communicate distance	100m without repeater
·Response time	less than 5ms
Mechanical features	
·Coating	ABS plastics, with install accessories
·Plug-in screw terminator	diameter of lead 0.05mm^2 to 2.5mm^2, 1-＃12 or 2-＃14 to ＃22AWG
Serial network	
·Interface	RS-485
·Communication protocol	Modubs/RTU
·Max vertices	32
·Baud rate	115.2Kbps
Power requirement	
·Unconditioned	10～30VDC
·Protection	Over voltage protection and Reverse power protection
Software support	
·ActiveX Driver	
·Windows tool	network setting, I/O configuration and standard, data stream, warning setting Modbus/TCP OPC Server
Environment	
·Operating temp	-10～70℃
·Storage temp	-25～85℃
·Humidity	5～95 ％,non-condensing
Order Information:	
·RemoDAQ-9420	ethernet (4 slots) distributed data acquisition control system.
·RemoDAQ-9820	ethernet (8 slots) distributed data acquisition control system.

RemoDAQ-9421/9821

Feature

- 10/100 Base-T Ethernet interface
- support Web Server function
- Electrical mail alert function
- support FTP Server and Client function
- support Modbus/TCP Server and Client library function
- support Modbus/RTU main station and sub station library function
- 1.5 MB flash memory (96OKB is used to program for users)
- 640 KB SRAM(384KB for battery backup)
- ROM-DOS operating system
- watchdog and real-time clock
- support 4XRS-232/RS-485,could expand more RS-232
- 4 or 8 I/O expansion slots

Introduction

RemoDAQ-9421/9821 with Ethernet interface supports HTTP server, FTP server and mail alert function, which could monitor the system through Internet, obtain data through FTP connection and send the alert message to the specified mail address in the case of emergency. Both products support Modbus/TCP server/client function. RemoDAQ-9421/9821 could obtain data from remote I/O as a Modbus/TCP client, and also could connect with HMI/SCADA software as a Modbus/TCP server.

Specification

PC programmable controller system	16-bit micro processor
·CPU	1.5 MB flash: 960Kb use for user procedure
·DRAM	640KB SRAM (384KB for battery RAM)
·Memory	Boot ROM-DOS
·Operating system	enabled
·Timer BIOS	enabled
·Real-time clock	enabled
·Watchdog timer	10/100Mbps Base Base-T
·Ethernet	RS-232/485(RemoDAQ-9821), RS-232(RemoDAQ-9421)
·COM1	RS-485
·COM2	TX,RX, GND(RS-232 interface)
·Programming interface/COM3	RS-232/485
·COM4	4 slots or 8 slots
·I/O expansion slot	Power, CPU, communication and battery
·Status display	2.5W
·CPU Power consumption	
Isolation protection	3000 VDC
·Communication power	3000 VDC
·Input/output	2500 VDC(仅COM2)
·Communication	
Network	10/100Mbps
·Ethernet	9600, 38400, 57600and 115.2K
·RS-485	

Software support	Borland c++ 3.0 for DOS
·C library	
Power	
·Unconditioned +10-+30VDC	
·Power reverse protection	
Mechanical features	
·Coating	KJW plastics, with install accessories
·Plug-in screw terminator	Plug-in screw terminator: diameter of lead 0.05mm2 to 2.5mm2, 1-＃12 or 2-＃14 to ＃22AWG
Environment	
·Operating temp	-10～70℃
·Storage temp	-25～85℃
·Humidity:	5~95% non-condensing
Order Information	
·RemoDAQ-9421	ethernet programmable controller
·RemoDAQ-9821	8 slots Ethernet programmable controller
·DSLC-OPC/MOD	Modbus OPC Server
·DSLC-OPC/MTP	Modbus/TCP OPC Server

RemoDAQ-9000 Series I/O Modules Option Guide

Module		R-9033	R-9017	R-9017H	R-9018	R-9024	R-9050	R-9051D	R-9051S
Analog Input	Resolution	16 bit	16 bit	12 bit	16 bit	-	-	-	-
	Input Channel	3	8	8	7	-	-	-	-
	Sampling Rate	10K	10K	8K	10K	-	-	-	-
	Input Voltage	-	±150mV ±500mV ±1V ±5V ±10V	±250mV ±500mV ±1V ±5V ±10V	±150mV ±500mV ±1V ±5V ±10V	-	-	-	-
	Input Current	-	±20mA*	±20mA*	±20mA*	-	-	-	-
	Direct Sensor Input	Pt or Ni RTD	-	-	J,K,T,E, R,S,B	-	-	-	-
Analog Output	Resolution	-	-	-	-	12 bit	-	-	-
	Voltage Output	-	-	-	-	0～10V	-	-	-
	Current Output	-	-	-	-	0～20mA 4～20mA	-	-	-
Digital Input and Output	Input Channel	-	-	-	-	-	16 DIO(optional every bit)	16	16
	Output Channel	-	-	-	-	-	16 DIO(optional every bit)	-	-
Counter (32bit)	Channel	-	-	-	-	-	-	-	-
	Input Frequency	-	-	-	-	-	-	-	-
	Mode	-	-	-	-	-	-	-	-
Communication	Channel	-	-	-	-	-	-	-	-
	Type	-	-	-	-	-	-	-	-
Isolation Protection		3000 VDC	3000 VDC	3000 VDC	3000 VDC	3000 VDC	-	-	2500 VDC

Module		R-9052	R-9055S	R-9056	R-9056D	R-9056S R-9056SO	R-9060	R-9068	R-9069	R-9080	R-9090
Analog Input	Resolution	-	-	-	-	-	-	-	-	-	-
	Input Channel	-	-	-	-	-	-	-	-	-	-
	Sampling Rate	-	-	-	-	-	-	-	-	-	-
	Input Voltage	-	-	-	-	-	-	-	-	-	-
	Input Current	-	-	-	-	-	-	-	-	-	-
	Direct Sensor Input	-	-	-	-	-	-	-	-	-	-
Analog Output	Resolution	-	-	-	-	-	-	-	-	-	-
	Voltage Output	-	-	-	-	-	-	-	-	-	-
	Current Output	-	-	-	-	-	-	-	-	-	-
Digital Input and Output	Input Channel	-	8	-	-	-	-	-	-	-	-
	Output Channel	8	8	16	16	16	6-channel Relay（2 A type/ 4 C type）	8-channel Power Relay	8-channel Power Relay（Type A）	-	-
Counter(32bit)	Channel	-	-	-	-	-	-	-	-	4	-
	Input Frequency	-	-	-	-	-	-	-	-	5000Hz (Max)	-
	Mode	-	-	-	-	-	-	-	-	Frequency Plus/Minus counter Two-way counter	-
Communication	Channel	-	-	-	-	-	-	-	-	-	4
	Type	-	-	-	-	-	-	-	-	-	RS-232
Isolated Protection		5000 VDC	2500 VDC	-	-	2500 VDC	-	-	4000 VDC	1000 VDC	-

R-9033

3-channel RTD Input Module

Specifications

- channel: 3
- Resolution: 16
- Input type: PT100 or Ni RTD
- RTD type and temperature range:
- IEC RTD 100Ω
  - Pt-100℃ to +100℃ α=0.00385
  - Pt-0℃ to +100℃ α=0.00385
  - Pt-0℃ to +200℃ α=0.00385
  - Pt-0℃ to +600℃ α=0.00385
- JIS RTD 100Ω
  - Pt-100℃ to +100℃ α=0.00392
  - Pt-0℃ to +100℃ α=0.00392
  - Pt-0℃ to +200℃ α=0.00392
  - Pt-0℃ to +600℃ α=0.00392
- NI RTD
  - NI -80℃ to +100℃
  - NI 0℃ to +100℃
- Isolation voltage: 3000VDC
- Sampling rate: 10sample point/s (total)
- Input impedance: 2mΩ
- Band width: 13.1Hz@50Hz, 15.72Hz@60Hz
- Input connect method: 2-wire, 3-wire, 4-wire
- Accuracy: ±0.1% or higher,
- Zero drift：±0.015℃/℃
- Full-range drift: ±0.01℃/℃
- CMR@50/60Hz 150db
- CMR@50/60Hz 100db
- Power consumption: 0.85W (typical), 1.0W (Max)

Order Information:
R-9033: 8-channel Analog Input module-mV, V, mA

R-9017

8-channel AI Module

Specifications

- Channel：8-channel differential
- Resolution: 16-bit
- Input type: mV, V, mA
- Input range：±150mV, ±500mV, ±1V, ±5V, ±10V, ±200mA
- Isolated voltage: 3000VDC
- Malfunction and over voltage protection: Max bearable load ±35V
- Sampling rate: 10 sample point/s(total)
- Input impedance: 2MΩ
- Band width: 13.1Hz@50Hz, 15.72Hz@60Hz
- Input connect method: 2-wire, 3-wire, 4-wire
- Accuracy: ±0.1% or higher
- Zero drift :±1.5mV/℃
- Full range drift :±25PPM/℃
- CMR@50/60Hz: 92db (Min)
- Power consumption: 1W (typical) 1.25W (Max)
- Analog signal range:±15V(Max)
- Attention: the voltage between two input ports must be ≤±15V

Order Information:
R-9017: 8-channel Analog Input module-mV, V, mA

R-9017H

8-channel High-speed AI Module

Specifications

- Channel: 8-channel differential
- Resolution: 12-bit (additional symbol bit)
- Input type: mV, V, mA
- Input range:±500mV, ±1V, ±5V, ±10V, ±200mA,
  0~+500mV
  0~+1V, 0~+5V
  0~+10V
  0~20mV, 4~20mA
- Isolated voltage: 3000VDC
- Input impedance: 20MΩ (voltage input)
  125Ω(current input)
- Band width: 1KHz
- Signal input band width: voltage and current input are both 1KHz
- Accuracy: ±0.1% or higher
- CMR@50/60Hz: 92db(Min)
- Power consumption: 1.75W(typical)
  2.2W(Max)
- Each channel can set different range
- Attention: the voltage between two input terminators must be ≤±15V

Order Information: R-9017H, 8-channel Analog Input module-mV, V, mA

R-9018

7-channel Thermocouple Input Module

Specifications

- Channel: 8-channel differential
- Resolution: 16-bit
- Input type: mV, V, mA, thermocouple
- Input range: ±15mV, ±50mV, ±100mV, ±500mA, ±1V, ±2.5V, ±20mV
- Thermocouple type and temperature range:
  J 0~760℃
  K 0~1370℃
  T -100~400℃
  E 0~1000℃
  R 500~1750℃
  S 500~1750℃
  B 500~1800℃
- Isolated voltage: 3000VDC
- Fault and over voltage protection: Max bearable load±35V
- Sampling rate: 10 sample point/s(total)
- Input impedance: 2MΩ
- Band width: 13.1Hz@50Hz, 15.72Hz@60Hz
- Accuracy: ±0.1% or higher
- Zero drift: 0.3mV/℃
- Full range drift : ±25PPM/℃
- CMR@50/60Hz: 92db (Min)
- Power consumption: 0.5W (typical)
  0.63W (Max)

Order Information:
R-9018: 7-channel RTD Input module-mV, V, Ma thermocouple

R-9024
4-channel AO Module

Specifications

- Channel: 4-channel differential
- Resolution: 12-bit (plus sign bit)
- Output type: mV, V
- Output range: 0~+10V
  0~20mV, 4~20mA
- Isolated voltage: 3000VDC
- Accuracy: ±0.1% of full range (current output)
  0.2% of full range (voltage output)
- Resolution: 0.015% of full range
- Zero drift: voltage output: 30mV/℃
  Current output: 0.2mV/℃
- Full-range temperature ratio: 25ppm/℃
- Programmable output slope: 0.125~128.0mA/s
- Current load impedance: 0~500Ω(source)
- Power consumption: 1.4W (typical)
  2.9W (Max)

Order Information: R-9024, 4-channel Analog output module V, mA

R-9050
16-channel Digital I/O Module

Specifications

- Channel: 16
- I/O type: all can be choosed by DIP switch
- Digital input: dry contact
  Logic level 0: ground
  Logic level 1：open
  Wet contact
  Logic level 0：+2（Max）
  Logic level 1: +4V to 30V
- Digital output: open collector 30V
  100mAand 450mA Max load
- Power Consumption: 0.35W (typical)
  1.2W (Max)

Order Information:
R-9050: 16-channel universal digital input/output module

R-9051D

16-channel DI/O Module with LED Display

Specifications

- Channel: 16
- Input voltage: 30V (Max)
- Logic level:
  Logic level 0: +1V (Max)
  Logic level 1: +3.5V to 30V
- Circuit type : put up current 0.5mA (source)
- Power consumption: 0.5W(typical), 0.84W(Max)
- LED display(R-9051D): on input logic level 1
  Off input logic level 0

Order Information:
R-9051D: 16-channel digital input module with LED display

R-9051S

16-channel Isolation DI Module

Specifications

- Channel: 16
- Input voltage: 50V (Max)
- Logic level:
  Logic level 0: +3V (Max)
  Logic level 1: +3.5V to 30V
- Optic Isolation: 2500VDC
- Over voltage protection: 70VDC
- Power consumption: 0.8W (typical)
- LED Display:
  On: in operation
  Off: off-working status

Order Information:
R-9051S: 16-channel isolated digital input module with LED display

R-9052

8-channel Isolated DI Module with LED Display

Specifications

- Channel: 8
- Digital input level:
  Logic level 0: +1V (Max)
  Logic level 1: +3.5V to 30V
- Isolated voltage: 5000VDC
- Input impedance: 3K /0.5W
- Power consumption: 0.21W (typical)
  0.27W (Max)

Order Information:
R-9052: 16-channels digital input module with LED display

R-9055S

16-channel Sink/Source Isolated Digital Output Module

Specifications

- Channel: 16
- I/O type: 8 DO/8DI
- Digital output: open collector 30V
  200mA Max load
- Digital input: dry contact
  Logic level 0: open
  Logic level 1ground

Wet contact
  Logic level 0：+3V（Max）
  Logic level 1: +10V to 50V

- Optic isolation: 2500VDC
- Over voltage protection: 70VDC
- LED display:
  On: operating
  Off: off-working

Order Information:
R-9055S: 16-channel isolated digital I/0 module with LED display

R-9056D

16-channel DI/O Module with LED Display

Specifications

- Channel: 16
- Operating voltage: 30V (Max)
- Digital output: open collector 30V (100mA Max load)
- Power consumption: 0.5W 9typical) 0.84W(Max)
- Power consumption: each channel 450mΩ
- LED display:
  - On: input logic level 1
  - Off: input logic level 0
- Output status maintain function (R-9056D)

Order Information:
R-9055D: 16-channel digital output module with LED display

R-9056S/56SO

16-channel Sink/Source Isolated Digital Output Module

Specifications

- Channel: 16
- Digital output: open collector 40V (200 mA Max load)
  - 5056S(sink)
  - 5056SO(source)
- Optical isolation: 2500VDC
- Over voltage protection: 70VDC
- Power consumption: 0.6W (typical)
- LED display:
  - On: in operation
  - Off: not in operation

Order Information:
R-9056S: 16-channel sink isolated digital I/0 module with LED display
R-9055SO: 16-channel source isolated digital I/0 module with LED display

R-9060

6-channel Relay Output Module

Specifications

- 6-channel/8-channel relay output model
- Channel: 6-channel relay, 2 A type, 4 C type
- Contact capacity : AC: 125V@0.6A, 250V@0.3A
  DC: 30V@2A, 110V@0.6A
- breakdown voltage: 500VAC (50/60Hz)
- Relay connect time (typical): 3ms
- Relay disconnected time (typical): 1ms
- Total switching time: 10ms
- Insulating resistance: Min1000mΩ (500VDC)
- Power consumption: 0.7W (typical), 1.8W (Max)

Order Information:
R-9060: 6 channels relay output module, 2 A, 4 C

R-9069

8-channel Power Relay Ouptput Module with LED Display

Specifications

- Channel: 8 A type
- Contact power: AC: 250V@5A, DC: 30V@5A
- Electric breakdown voltage: 700VAC (50/60Hz)
- Relay connect time: 5ms
- Relay open time: 5.6ms
- Insulating resistance: 1000mΩ (500VDC)
- LED display: On: in operation
  Off: off-working
- Power consumption: 0.25W (typical), 2.2W (Max)

Order Information:
R-9069: 8 channels power relay output module with LED display

R-9080

4-channel Counter/Frequency Module

Specifications

- Channel: 4
- Max counter: 4,294,967,285(32-bit)
- Input frequency:
  frequency model: 0.3~1000Hz (Max)
  counter model: 5000Hz (Max)
- Input level: isolation or TTL level
- Min impulse band width: 500ms (frequency model),
  100ms (counter model)
- Min input current: 2mA (isolated)
- Isolated input level:
  logic level 0: +1V (Max)
  logic level 1: +3.5V to 30 V
- TTL input level:
  logic level 0: 0V to 0.8V
  logic level 1: 2.3Vto 5V
- Isolated voltage: 1000VRMS
- Model: counter (plus/minus, two-way) frequency
- Counter assisted function:
  Initialization setting, high/low alarm set up, warning
  digital output - - switch, overflow flag
- Programmable digital noise filter: 8~65000ms
- Power consumption: 1.3W (typical) 1.5 (Max)

Order Information:
R-9080: 4 channels counter/frequency module

R-9090

4-Port RS232 Module

Specifications

- 4- Port RS-232 Module
- Port: 4 serial ports
- Data bit: 5,6,7,8
- Stop bit: 1, 1.5, 2
- Check Bit: none, even, odd
- UART: 1×16C964(128byte FIFO)
- Speed: 50~115.2Kbps
- Data signa: TxD, RxD, RTS, CTS, DTR, DSR, DCD, RI, GND
- Connector: RJ-45
- LED display: TX, RX
- Power consumption: 0.6W (Max)
- Only use for R-9410/9810/9411/9811

Order Information:
R-9090: 4 RS232 ports module

R-9090A

2-Port RS232 /2 port RS-485 Module

Specifications

- Port: 4 serial ports (2 RS-232, 2 RS-485)
- Data bit: 5,6,7,8
- Stop bit: 1, 1.5, 2
- Check Bit: none, even, odd
- UART: 1×16C964(128byte FIFO)
- Speed: 50~115.2Kbps
- Data signal： TxD, RxD, RTS, CTS, DTR, DSR, DCD, RI, GND (RS-232), Data+, Data- (RS-485 auto reverse)
- Connector: RJ-45
- LED display: TX, RX
- Power consumption: 0.6W (Max)
- Only use for R-9421/9821/9428/9828

Order Information:
R-9090A, 2 ports RS232 / 2 ports RS-485 module

Controller

SG-4000 Series Signal Isolated

Product Selection Guide

MADE

SG-4011 Isolated Thermocouple Input/DC Output Module

Input Type:

Thermocouple Type	Temperature Range	Remark
J	-40~760℃	±2℃
K	0~1000℃	±2℃
T	-100~400℃	±2℃
E	0~760℃	±2℃
S	0~1750℃	±4℃
R	0~1750℃	±4℃
B	0~1800℃	±4℃
N	0~1300℃	±4℃

Output Type:

·Voltage Output: 0~10V

·Output Impedance: 0.5Ω

General:

·Isolation (Three Way): 1000VDC

·Accuracy: ±2℃

115dB（Min）

CMR:

·Temperature Range: -20℃ ~ 70℃

·Humidity: 5% ~ 90%, Non-condensing

Power Supply:

·Power Consumption: 1.4W

·Voltage: 24VDC ±10%

SG-4013 Isolated RTD Input/DC Output Module

Input Type:

Pt100(α=0.00385)	-100～100℃	CU50	-50~150℃
Pt100(α=0.00385)	0~100℃	CU100	-50~150℃
Pt100(α=0.00385)	0~200℃		
Pt100(α=0.00385)	0~600℃		
Pt100(α=0.00385)	-100~0℃		
Pt100(α=0.00385)	-100~200℃		
Pt100(α=0.00385)	-50~50℃		
Pt100(α=0.00385)	-50~150℃		

·Input Connections: 2/3/4 wires

·Output Range: 0~5V, 0~10V, 0~20mA

·Accuracy: ±0.5℃

·Temperature Drift: ±30 ppm(Full Range)

·Input CMR: 92dB（Min）

·Isolated Voltage: 1000VDC

·Voltage: 24VDC +/-10%

·Bandwidth: 4Hz

·Power Consumption: <0.95W

Conditioning Module

IN CHINA SELF-DEVELOPING

SG-4014 Isolated DC Input/DC Output Module

Voltage Input:	Bipolar:+/-10mV, +/-50mV, +/-100mV, +/-0.5V, +/-1V, +/-5V, +/-10V Unipolar: 0~10mV, 0~50mV, 0~100mV, 0~500mV, 0~1V, 0~5V, 0~10V Input Impedance:2MΩ
Current Input:	Input Bandwidth: 2.4 KHz (standard) Bipolar:+/-20mA Unipolar:0~20mA
Voltage Output:	Unipolar:0~20mA Bipolar: +/-5V, +/-10V Unipolar:: 0~10V Impedance: <50Ω
Current Output:	Drive: 10mA (Max) Current: 0~20mA
General:	Load: 0~500Ω (Source)
·Isolation (Three way):	1000VDC
·Accuracy:	+/-0.1% of full range
·Stability : (Temperature Drift)	150ppm (Standard)
·Isolation Mode Restrain:	>100dB@50Hz/60Hz
·Temperature Range:	-20℃ ~ 70℃
·Humidity:	5% ~ 90%, Non condensing
Power Supply:	
·Consumption:	0.85W (Voltage Output) 1.2W (Current Output)
·Voltage:	24VDC ±10%

SG-4016 Isolated Strain Gauge Signal Input/DC Output Module

Voltage Specifications:

Input:	+/-10mV, +/-20mV, +/-30mV, +/-50mV, +/-100mV
Excitation Voltage:	1~10VDC (Max 20mA)
Voltage Output:	1~10VDC (Max 20mA)
Bipolar:	+/-5V, +/-10V
Unipolar:	0~10V, 0~5V
Output Impedance:	<50Ω
Current Output:	0~20mA
Three-way Isolation:	3000VDC
Accuracy:	+/-0.1% of full range
Bandwidth:	1.2KHz@-3db(Typical)
Weight:	102.5gram
Power Supply:	10~30VDC +/-10%
Power Consumption:	1.44W (Voltage Output) 1.74W (Current Output)